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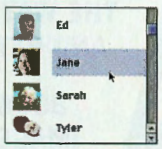
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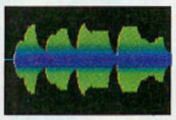
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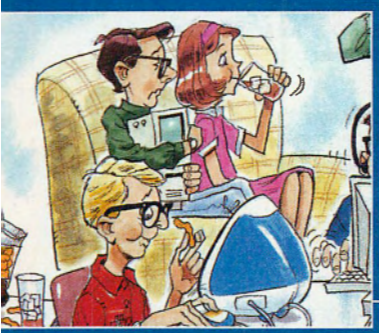


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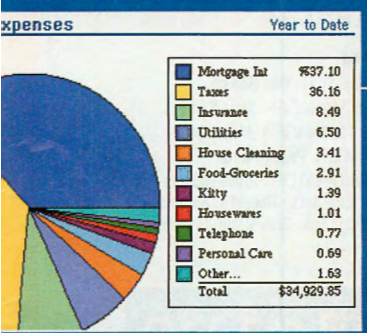
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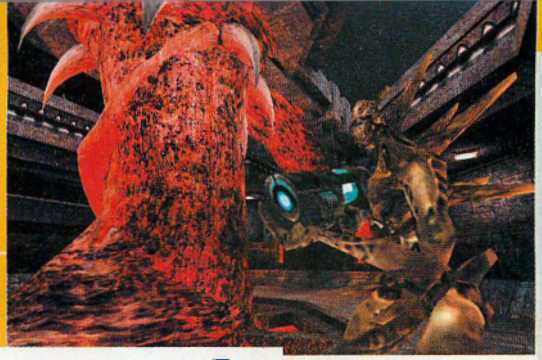
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ANYONE SEEN a low-res guy with a Tommy gun?

every month

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They're everywhere!!! Um...future filmmakers, that is.

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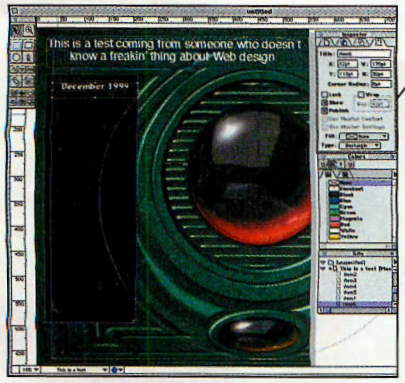
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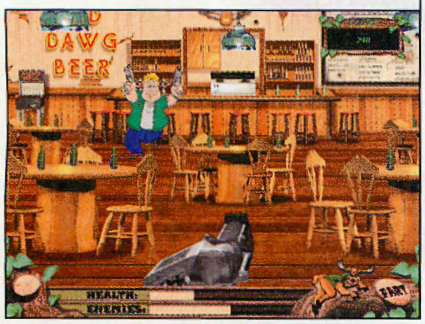
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Pit Droids Demo

The Force lives on in this latest *Star Wars* saga. This time, instead of making your spine shiver with memories of Jar Jar, it challenges your wits to lead an army of pit droids (those quirky, mechanical, clownish oddities) through levels of puzzles, ultimately reaching the Podrace Arena to repair Podracers. This puzzle-heavy game travels through different locales on Tatooine, including Watto's Shop and Junkyard and the mazes of the Mos Espa marketplace. Are you up to the challenge? Anyone with less than half their given brain cells need not apply.

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Deer Avenger 2 Demo

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It's out with the old and in with the new in our game of musical chairs. Rob (aka Prison Guy) introduces you to the new kids on *MacAddict*'s chopping block. Take a peek and discover what makes them tick. All we can say is—keep your ducks away from Jenifer, Ian will get an iBook "fer sure," and we'll have to find a bigger mailbox for Dave.

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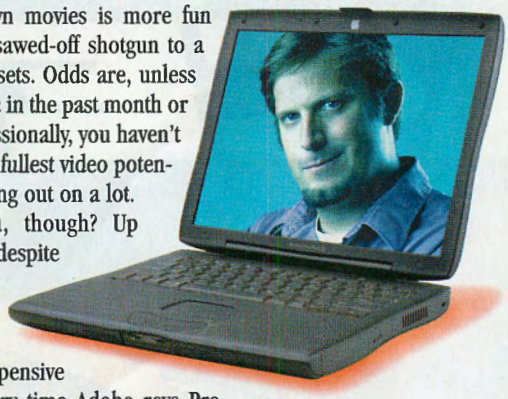
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editor's note

It's almost Christmas, but that has nothing to do with this column.



Making your own movies is more fun than taking a sawed-off shotgun to a pile of old TV sets. Odds are, unless you just bought a new iMac in the past month or you work with video professionally, you haven't been using your Mac to its fullest video potential, and you've been missing out on a lot.

Who can blame you, though? Up until now, video editing, despite continued claims to the contrary, has been neither simple nor cheap. You hear how easy and inexpensive working with video is every time Adobe revs Premiere or a new digital video camera comes out, and while accurate in a way, such announcements seldom resonate with typical home computer users.

I've been working with digital video for a few years now, and it has indeed become relatively accessible. Heck, for $5,000 you can get a pro-level Mac editing system, the equivalent of which would have set you back around $200,000 just a few years ago. But that's still five grand—a little stiff for just goofing around. And don't get me started about ease of use. Part of that $5,000 buys buggy programs, complex scratch disk requirements, and steep learning curves. You can work with it if you're committed to the task, but these systems may be a little much for making a movie of your tykes sledding down a snowy hill on Christmas morning.

Apple has finally broken through with the new iMac DV. The company now offers a complete DV editing system built into a $1,200 computer. This is something no other company in the world is even close to pulling off. Apple came out ahead of the curve because it managed to build all of the requisite technologies itself (sans the cameras, of course). The company invented QuickTime, the foundation for all inexpensive and powerful video editing; helped create FireWire, the interface that negates the need for expensive capture cards; and, last but not least, developed its own inexpensive DV editing package—the new iMovie software shipping with the iMac DV. Manufacturing all the key pieces allows Apple to integrate them tightly with the Mac OS and the iMac hardware, thus transforming technology as complex as DV into a toy and a tool almost anyone can use. Only Mac users have such a simple, elegant, and cheap option available for making the next corny indie flick or putting together a video for *the band*.

> Apple's DV prowess embodies why I fell in love with the Macintosh in the first place.

Apple's newfound DV prowess embodies why I fell in love with Apple and the Macintosh in the first place. These terrific little computers empower you to do all kinds of cool, clever, and creative things without forcing you to be a technology wizard. The Mac has turned us all into photo editors, illustrators, and amateur page designers. Now we get a shot at becoming moviemakers, too. That's an appliance worth sinking $1,200 into.

Say Hello to Narasu

Everybody give a shout for Narasu Rebbapragada, our new *Reviews* editor. She is a world-traveling former page-layout artist who recently made the switch to journalism. She'll be heading up our product testing, and while she swears her main Mac hobbies revolve around design and publishing, I've caught more than a few stealthy glances at our dedicated Quake III machine. You, of course, will be able to find out much more about her in the next few staff videos.

Staff Rants

They're staff and they rant, so we named this section *Staff Rants*. Here's what's floating around in their brains this month.



Narasu Rebbapragada
Associate Editor (reviews)

Q. *Your favorite Mac is the...*
A. Mac from Kraft, 'cause it's the cheesiest. But my second favorite is the new strawberry iMac. If only it were scratch-'n'-sniff...

Q. *The next rev of the iMac should include...*
A. I don't know. I can't think of a thing. It must be perfect the way it is.



Dave Reynolds
Executive Editor

Q. *Your favorite Mac is the...*
A. Big Mac...mmmmmmmm.

Q. *The next rev of the iMac should include...*
A. Bill Gates's head on a stick.



Nikki Echler
Executive Editor

Q. *Your favorite Mac is the...*
A. Grape one on my desk at home.

Q. *The next rev of the iMac should include...*
A. A built-in money machine so I can have fast access to the huge amounts of cash I make working here.



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letters

Why do we read your letters month after month? It's the cheese!

This Month

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ILLUSTRATION BY DAVID "SALAMI" ROSS

Making a List, Checking It Twice

In an email message on September 7, 1999, letters@macaddict.com replies: "Thank you for writing to *MacAddict*. Rob Capps reads each and every message sent here, but cannot compose a response to every letter." Whoa, wait. Prison Guy reads my letters? Does this mean he knows where I live? Should I purchase a MouseHouse security system?—Bennett Prescott

Rest in Peace

A week ago, lightning struck my workshop and caused a devastating fire. A Mac IIci, a Mac SE/30, and a Mac Plus lost their lives in the fire. The family is in mourning. The funeral was on September 18, 1999, in my backyard. All those who have lost loved Macs, our hearts go out to you.—Keith Owen



TOASTED, like a Pentium meeting a G4.

You're So Cute

I'd like to criticize the Prison Guy for the *Editor's Note* in the October issue. How can you categorize anime as "cute," alongside the VW Bug and the iMac? Have you seen any anime besides Pokemon and Sailor Moon? I seriously doubt it. The American media choose to play Pokemon, Sailor Moon, Dragon Ball Z, and the old stuff like Voltron and Speed Racer because they appeal to the youth, who watch the most TV. However, that does not represent all anime. Some anime are very bloody and gory, while some are "hentai," rated XXX. There are also some extremely profound anime, namely Neon Genesis: Evangelion, which no TV series ever created can rival! I highly recommend you watch it and then form your opinion. I wrote a Yale freshman application essay on the misconception of Japanese animation and did a presentation on it, so I really hate to see people publicly misjudge anime.
—Daniel Geng

We Blame Doug

"Comes in Orange too!", you say? Cancel my subscription! Only Wintel people don't know the difference between orange and tangerine!—Joel A. Doren

I can't believe this! I saw on the cover of the October issue "Comes in Orange too!", referring to the tangerine iBook. You guys spent about two months going over all the colors of the iMac, then when this issue comes around, you don't even use the correct name. That's what my peecee friends call it. In the next issue, you should include little stickers that cover up the word "orange." That solves the problem of more people emailing you. Is that a great idea or what?—A.D. Robb

You call yourselves *MacAddict*? The cover of the October issue claims that the iBook comes in orange. Orange?!?!?! Every true Mac addict knows that the color is tangerine. What in the blazes were you thinking?
—Jeff Hunsel

It's Not Orange, Duh

I probably won't get an iBook because I'm saving up for a G4, but I like them because they remind me of my cat. Both of them are orange and white, with a graceful, curved profile and a small footprint, weigh about 6.5 pounds, and are surprisingly powerful for their size. But the iBook doesn't drool in sleep mode.—Doug Hathaway

Flush His PC

My PC-loving boss says the iBook looks like a toilet seat. How can I get back at him?—Jessie Ahroni

You Wanna Fight?

October's staff video made it obvious that now that Dave has stepped down from the mighty chair of editing, *MacAddict* can follow one of two courses of action: Dave will withdraw his proclamation of battle against the ever nonexistent Jason O'Grady, making all Mac addicts hang their heads in shame; or Rob will step up to the challenge by raising the bounty. If he loses, they get to have Nikki—well, that may not be so bad...hmmm, this idea has merit.—Aaron E. *(I don't appreciate that comment at all. —NE)*

Here's an idea for when you find O'Grady: Why don't you challenge him to a Myth II game? (Or whatever you're playing right now.) Marathon would work, too, if you get Prison Guy on your team. O'Grady can have Matthew Rothenberg (his ad is in

Macworld, May/99, p66) on his team. Or you can have a paintball war, or a tug-of-war between the *MacAddict* and *MacWeek* editors. Or you can get an N64 and play Super Smash Brothers. Or you can hire Prison Guy to give O'Grady a noogie—fistfights are so early nineties.—Timothy Frede

Are you There, Apple? It's Me, Dan

In response to "Hey! Who Stole My..." ("The Wild, Wonderful iBook," Oct/99, p24), I wanted to point out that Apple stole something else—a built-in microphone. Someone once said what hardware needs more than anything else is a killer app. For the original PC, it was Lotus 1-2-3; for the Macintosh and LaserWriter, it was PageMaker. What could be cooler for the student with a laptop than the ability to record lectures and play them back with compression in a fraction of the time? Apple should buy MicNotePad Lite and include it with every revision of the iBook.—Dan Patnode

You're Not Real

Your new editor is a computer man's man—I like him. Now don't get the wrong idea—I know you're up by Frisco—I'm no sissy boy looking for company. I'm a 42-year-old Navy commander. I started with Apples before there was a Mac, and cut my teeth on computers fixing the boxes that run Navy guns and missiles. I personally fixed the Samuel B. Roberts (FFG-58) before she decided to hit a mine in the Gulf in '88, and the guys I worked with fixed the Stark after she ate an Iraqi Exocet.

I use Macs because Macs are what people use when they must get real work done. I read *MacAddict* because it packs more useful information into every issue than any other Mac 'zine. It bugs me that PC geeks treat the Mac as a toy even though they struggle to print a letter in Word or play a game. My Launcher has 60 apps I use regularly that run the gamut from Matlab and Mathematica to Premiere and Power Goo. That's the real difference between PCs and Macs—we can do more. Your new editor looks like he's perfect, even though I know a little girl (and a big one, too) who would love a pink computer. Keep rockin', R.C.!—Paul J. Tetreault, Jr., Esq.

Ummm...Thanks?

Wow! Thanks for such a nice magazine. I used to read the competition—you know, the one with "world" in its name. The only problem was that those guys are so technical-minded. You, on the other hand, are so simple-minded.—Jonathan Golden

Swiss or Cheddar?

"The crackers, Gromit! We forgot the crackers! No, no! Forget the crackers! Get the iBook!!!" If only *A Grand Day Out* had that line. Yes, I shelled out the 25 smackers for the *Wallace and Gromit* boxed set. Please don't laugh. Instead, send me an iBook. And maybe some cheese! After all, "Gromit—there's no cheese, not a bit in the house!"—Oren Krinsky

Updating the Update

I read the article "Fight Back for Your Mac Clone" (Oct/99, p36), and I have some additions for the "Update Your Drivers" section: Try Intech Software's Hard Disk SpeedTools and CD-ROM SpeedTools (http://www.intechusa.com). The CD driver works great in my APS MPower with both a Teac 12X IDE and a Plextor 32X. The Intech CD driver also works with Toast Audio Extractor, while the FWB CD driver does not. The Intech CD driver works with CD-R and CD-RW drives, so you don't need Toast CD Reader. Also, Intech's CD Audio Player seems to work better than either Apple's or FWB's. The Apple CD-ROM driver, version 5.3.1,

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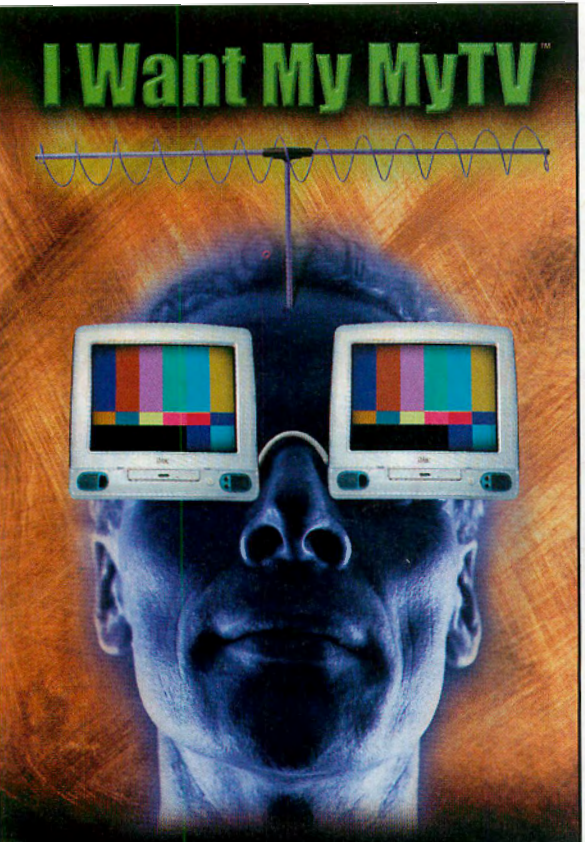


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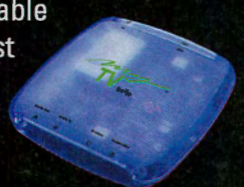
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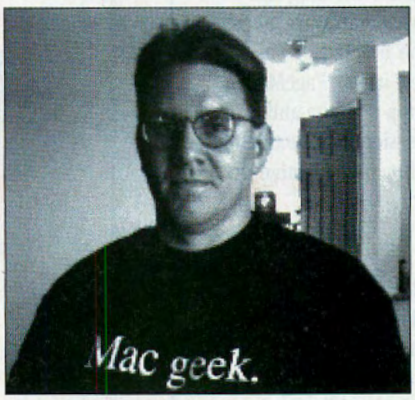
is available as a free download from a great site, Mac Driver Museum (http://members.xoom.com/macdrivers/disk.html).—John Chase

Too Little, Too Late

Nikki's been playing Marathon? I mean, c'mon. That's circa 1996! It could only mean one thing: destiny. Marathon is my all-time favorite game...even after all these years! Gee, a woman who really appreciates the classics.

I have a 10Base-T network in my house, I make my living doing Mac support...and I'm single! What more could you ask for in a guy? Nikki, will you marry me? (I'd even be willing to buy a new iBook in...gulp...tangerine.)—Chuck Cribbs

(Sorry, Charlie—I mean Chuck—I'm already married as of last September. But Dave plays Marathon.—NE)



NOT CHIC?

The Truth Is Out

What a blast! I'm reading my favorite magazine, and what do I see but my drawing! Thanks a bunch for publishing it (*Get Info*, Oct/99, p20). The title of the "Mouse with teeth?" drawing was "Mousegate, Win's Y2K bug!" I guess the name got lost. By the way, the teeth are really F keys—now they have *real* value.—Bob Peyton

You Get What You Pay For

I was looking at the article on getting free stuff on the Web ("MacAddict Free-for-All," Sept/99, p40), and I noticed you told people to beware of offers "that give you a 'free' gift, subscription, or service you have to either cancel or pay for later." Umm... isn't that how the subscription service on your Web site works out?—Don Pham

(Ummm, yeah. What we meant to say was you should definitely "be aware" of these great deals that let you try out fantastic magazines and services for a free trial period. Yeah, that's the ticket.—Ed.)

Power to the Post-It!

I think all you high-tech gurus have missed one big improvement in Apple's 17-inch monitor. Yes, it's blue and white and looks really cool, and it's probably technically better than the old beige units.

But the best part is that, unlike the old textured beige monitors, the new ones have a shiny glossy surface, so my Post-It notes stay stuck to the front. Technology just keeps marching on.—Steve Lawler

Lara or the Logo?

I was reading October's *Shutdown* when I glanced to the opposite page and saw the wonderful Lara in a bikini! Can you make a poster of that and put it in the next issue? (I saw it in *Macworld* and they said they'd do it, but I want the *MacAddict* logo in the corner...it helps me sleep better at night.)
—Chris Ruppel

Toe the Company Line

In a fit of frustration, a coworker kicked his misbehaving PC and suffered a serious ankle injury. In an effort to help, I decorated his cast with best wishes for a speedy recovery.
—James C. Savage



...OR NOT at all!

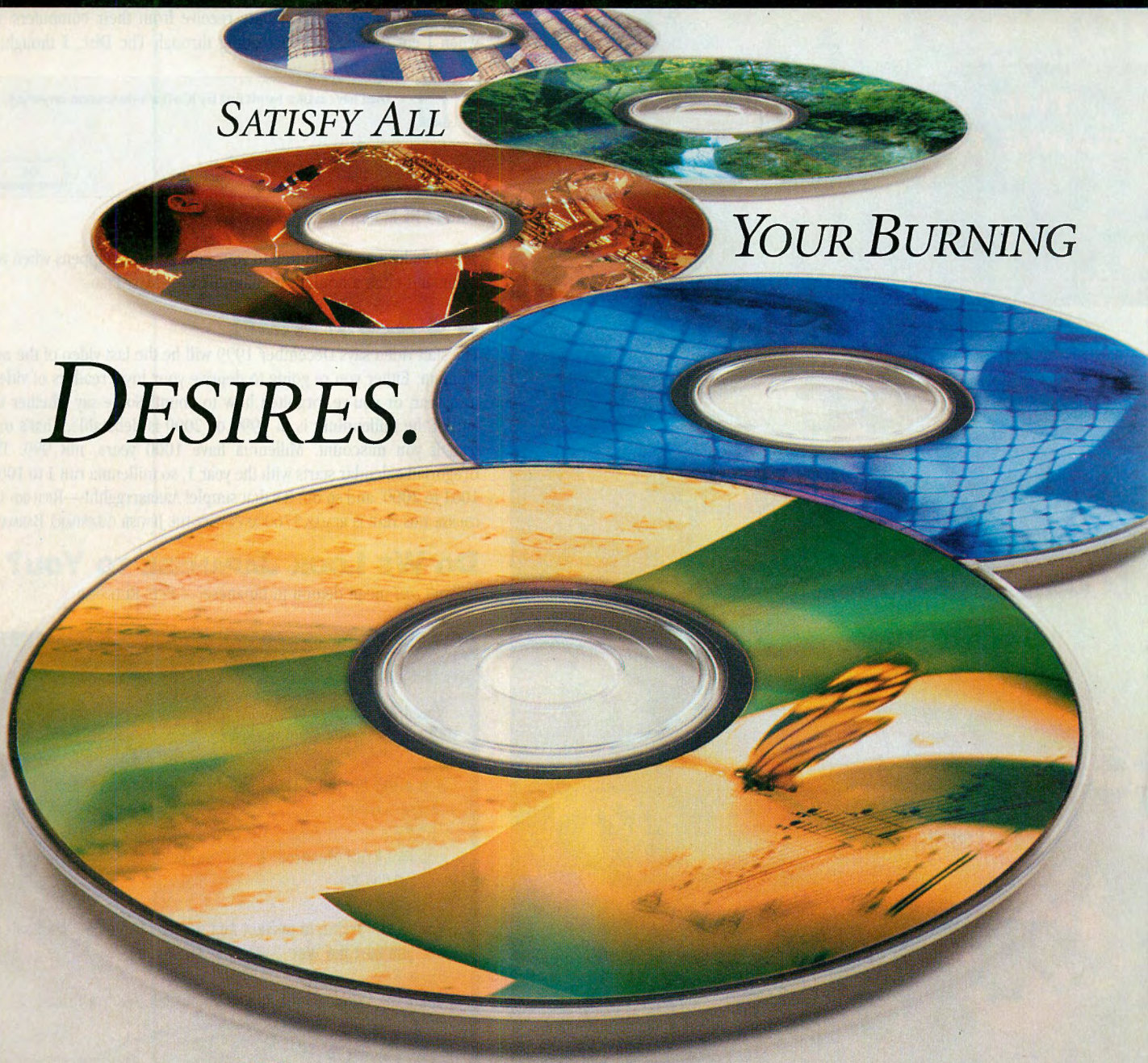
You Needed Proof?

Here is a reenactment of my first ten minutes at school today. I walk into school proudly carrying my *MacAddict* for the silent reading session of my English class when some guy comes up to me and tells me that Macs suck and he hates them. I ask him why.

His response? Well, he tells me that he doesn't really hate them, but the only thing he likes better about the Mac is its operating system! Once again, proof that some peecee users really do just have a peanut for a brain!—Jason Gillies

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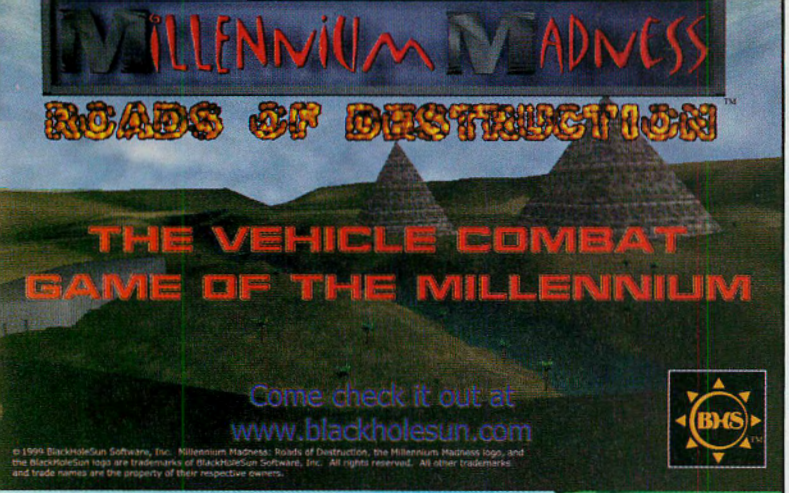
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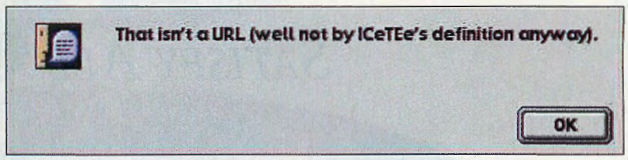






It's in Mint Condition!

I am a subscriber to your magazine, and I have noticed occasional sections on weird alerts people receive from their computers. So when I got this one while reading through The Disc, I thought it



WASN'T HE in New Jack City?

would make a good addition to your collection. It happens when you command-click a nonlink in SimpleText.—Matt Piro

It's About Time!

The staff video says December 1999 will be the last video of the millennium. Either you're going to deprive your loyal readers of videos next year, or you've forgotten how to count! Some say whether the end of the millennium is in 1999 or 2000 is debatable. That's only true if you miscount. Millennia have 1000 years, not 999. The Gregorian calendar starts with the year 1, so millennia run 1 to 1000, 1001 to 2000, and so on. It's that simple! Aaaaarrgghh!—Richard (of course this year is really 5760 anyway in the Jewish calendar) Berman

Do We Look Japanese to You?

Doesn't *oni* mean demon in Japanese?—Pete Rutenbar

You Know You're a Mac Addict When...

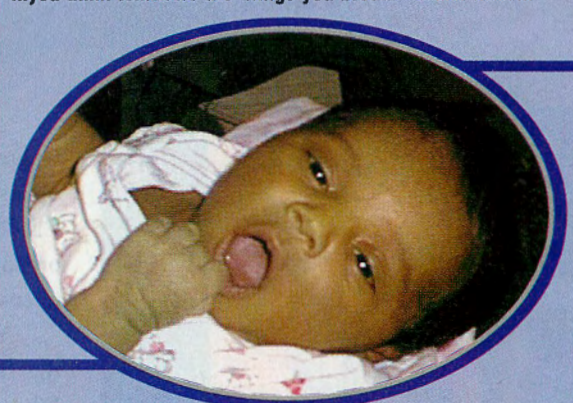
...you draw pictures of Max with a green crayon on napkins at Red Lobster while waiting for your food.—Brian Klinnert

...you order all 15,000 G4 build-to-order configurations.—Stephen Swift

...you like Kraft Macaroni & Cheese because it's called Easy Mac.—David Kemp

...you're still trying to perfect that macro for playing WarCraft while you surf the Web.—Kevin L. Knoles

...you think Windows are things you break.—Brian Heibert



...you name your first child Claris Elizabeth Clealand. No, I'm serious. She was born July 23, 1999—the last day of Macworld New York, for those of you keeping score at home.—Wysmar Clealand

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Some of Our G4s Are Missing

Motorola can't keep up with G4 demand

As problems go, it's not the worst one to have—too many people want your product. It's certainly a position familiar to Apple (remember the PowerMac 8500 and 9500?), and once again Cupertino finds itself supply-stricken—the G4s have proven sufficiently popular that Apple can't keep up with demand. In the first three weeks after their release, over 150,000 orders poured in for the graphite and silver beauties. Normally, this would be cause for celebration, but this is Apple, after all. Apparently, the G4 processor is so new that Motorola can't manufacture them as quickly as it had hoped, and its inability to meet customer demands is once again taking a toll on Apple's pocketbook.

Apple cited the G4 backlog as the cause of lower than expected fourth-quarter earnings. The news of Apple's stumble sent its stock into decline—when Apple warned of lower than expected earnings, the company's share price fell more than 20 points from its high of 80 1/8. Motorola, sounding miffed at getting blamed for the problem, issued a press release, stressing that the "overwhelming demand" for the G4 made shortages unavoidable. The dearth of chips leaves Apple unable to ship any of the 500MHz G4 models until next year, and has forced the company to resturucture the pricing on the entire G4 line—much to the chagrin of waiting customers. Starting on Oct. 13 the price for a 450MHz G4 jumped from $2,499 to $3,499 with other models receiving similar price hikes.

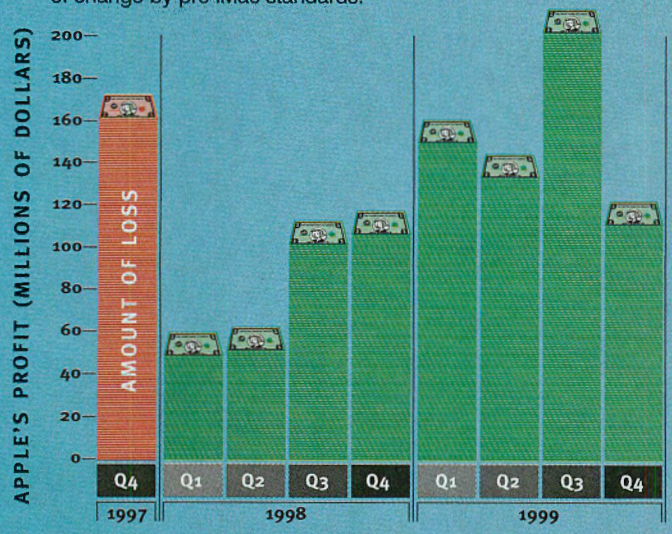
Supply problems are not necessarily devastating—as long as demand remains strong, product delays shouldn't cost the company too much money. If Apple relapses into the continuous product shortfall habit from years past, however, customer backlash could once again cause Cupertino some significant headaches.—*IS*



ILLUSTRATION BY MIKE CRESSY

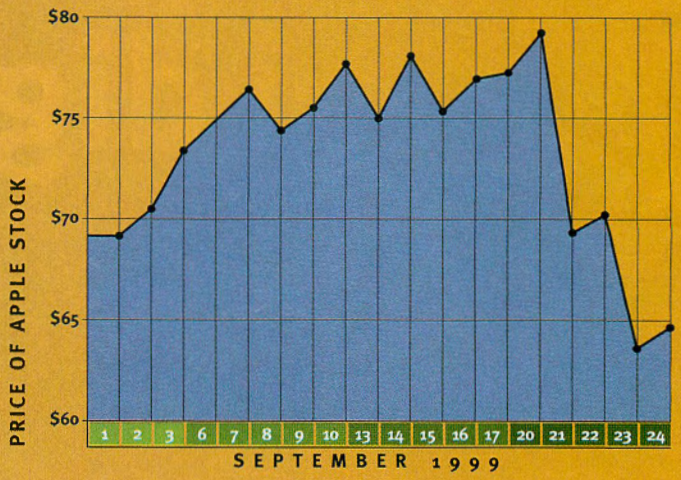
Only $111 Million?

Apple's lower profits require a bit of perspective. While $111 million in profits is Apple's lowest take in a year, it's still a nice pile of change by pre-iMac standards.



What Goes Up . . .

The company's stock briefly hit 80 1/8 on September 20—an all-time high. That night Apple issued its profit warning, which sparked a dramatic sell-off.



GI Jobs

U.S. Army switches to Macs for Web servers, French Army fears jamming

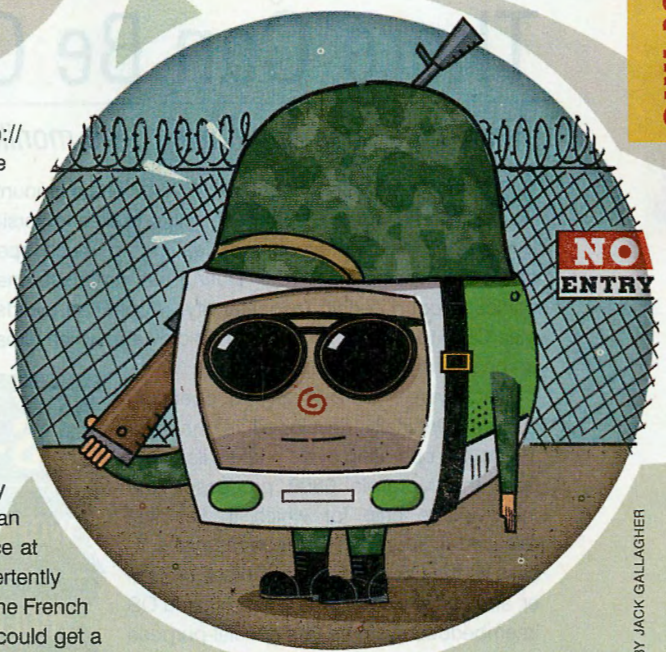


ILLUSTRATION BY JACK GALLAGHER

It sounds like the plot of a bad thriller—a member of a hacker organization called Global Hell, working out of Green Bay, Wisconsin, broke through the somewhat porous security of a U.S. Army Web server running Windows NT and maliciously altered its contents. From there, he broke into a U.S. Army network, covering his traces.

Unfortunately, this wasn't a B-rated movie—it actually happened last summer, according to a U.S. Army news release (http://www.dtic.mil/armylink/news/Sep1999/r19990902hacker.html). The Army arrested the hacker, but after this debacle decided that it had finally had enough of what passes for security on NT Web servers. In August, the Army switched off its old servers and put its Web sites onto Macintosh G3s running StarNine Technologies' WebStar server. For support, the Army cited the World Wide Web Consortium (http://www.w3.org), which regards the Mac as generally more secure than other platforms for Web hosting.

While Apple has gotten the approval of the U.S. Army, the French Army is much less sanguine about the company. It turns out that the French armed forces use the same 2.4GHz frequency as the iBook's AirPort for military communications. This means an iBook owner in the wrong place at the wrong time could inadvertently interfere with transmissions of the French Army. The hapless iBook user could get a fine of over $30,000 and spend six months in jail. Apple is hoping to get a waiver due to the AirPort's relatively short range, which the French military is testing.—*IS*

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There Can Be Only One

Microware sues Apple over OS 9 moniker

When Apple first announced OS X, a certain amount of confusion ensued. Skipping an entire operating version number was totally unprecedented, leading to much speculation about the missing Mac OS 9. During the rumorfest, one idea in particular got a certain respectability—Apple had avoided using Mac OS 9 to avoid a lawsuit from Microware, which already sells an operating system called OS-9.

Microware's OS-9 is an *old* operating system. Originally developed in the mid-1970s, the operating system takes its name from the Motorola 6809 processor, the 1981-vintage chip for which it was first released. It scored its first commercial success as the OS of the Tandy Color Computer, and has since become a widely used OS in embedded systems (the special-purpose computers found in devices such as cars, appliances, and consumer electronics).

Now that Apple has gone ahead and called the latest revision Mac OS 9, Microware has filed four counts alleging trademark infringement, trademark dilution, and unfair competition. Stripped of legalese, its allegation states that Apple's sales of Mac OS 9 will benefit from the marketing Microware has done for its own OS-9 (wasn't there an ad during ER last week?). Microware is seeking all profits Apple makes from the sale of Mac OS 9, enough money to cover the advertising Microware claims will be necessary to distinguish Mac OS 9 from OS-9 in the mind of its customers, and additional punitive damages.

Given that Apple and Microware haven't targeted the same market since the early 1980s, the latter will have some work to do in order to prove that Apple was trying to steal the benefits of Microware's marketing. Still, given Apple's own propensity to sue over trademark dilution, it'll be interesting to compare the progress of this case with that of the iMac clone suits.—*IS*

OS-9 vs. Mac OS 9		
WORKS ON POWERPC PROCESSORS	✔	✔
WIDELY USED AS AN EMBEDDED SYSTEM	✔	
HAS A GUI	✔	✔
RUNS ON A MAC		✔
RUNS ON NORTEL PHONES	✔	
SELLING PROFITABLY		✔
SOLD AT COMPUSA		✔

Asynchronous vs. Isochronous

In the past year and a half, two new ways to move information around the Mac have sprung up—FireWire and USB. Both of the new transfer standards can push packets of information around either asynchronously or isochronously. Most of the time you probably won't care what the difference is, but here's a breakdown in case you ever need to know.

In asynchronous transfers, there is no fixed amount of time between transmission packets. Because asynchronous transfers do not guarantee timing, they can be slower than other types. They do, however, guarantee the integrity of the transmitted data. Storage devices, port adapters, and most other nonmultimedia devices use asynchronous mode transfers—for these devices, timing is less important than accurate transmission.

Isochronous transfers guarantee the time interval between packets within set limits. This allows the transfer of time-dependent data such as video streams without pauses or distortion. FireWire uses isochronous transfers so that it can transfer video streams without stalls; the drivers in Mac OS 8.5.1 introduced USB isochronous mode to the Mac. Because these transfers must guarantee time steps, they can't guarantee accurate reception of all transmitted data (there may be a dropped video frame, for example). For audio-video streams, this is fine—a skipped frame is much better than constant stalls and dropouts. For most other purposes, however, lost data isn't acceptable.—*IS*

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Pulling Into the Fast Lane

Some tips to get you rolling with Freeway 1.0.2

This month, our intrepid CD-ROM editor Kris Fong has managed to bring you two killer full working programs to help you channel your creative energy. One of these, Freeway 1.0.2, is a Web site creation machine that QuarkXPress fans are sure to love. We'll show you the basics and give you a quick tutorial to get started.

FIND A FULL VERSION of Freeway 1.0.2 on The Disc.

Freeway 1.0.2

Freeway (from SoftPress) hit the scene a couple of years ago, and is currently up to version 2.0. Although the version on The Disc is 1.0.2 (there's a special upgrade offer), this capable older version will be familiar to anyone who has ever used a page layout program—it looks and works an awful lot like QuarkXPress. What we'll show you here only touches the surface of Freeway's capabilities—the application can do much, much more than we can demonstrate on one page.

Here's a look at Freeway's interface.

Manipulate graphics with rotate, skew, and reflect tools.

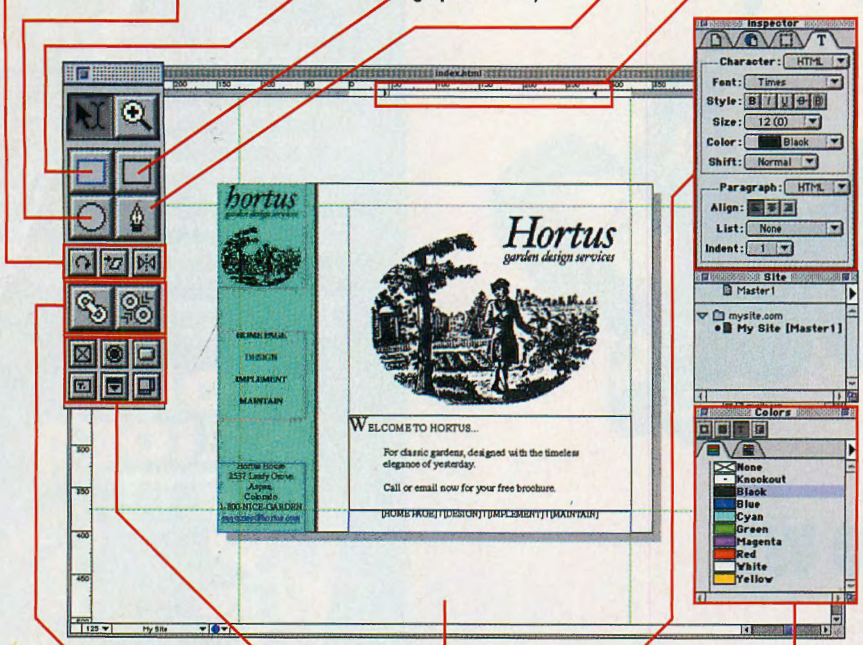
Use the oval GIF tool to create round graphics boxes.

Use the HTML box tool to create a box for HTML text.

Use the GIF box tool to create a box for graphics (or for text you're converting to graphic format).

Use the pen tool to create freeform graphics containers.

Exercise a ton of control over your test with margin guides.



Link two text boxes with the link tool—just as you can in QuarkXPress.

Create various forms, fields, and buttons on your Web page with these tools.

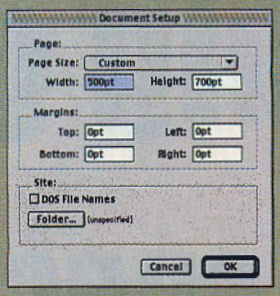
The pasteboard is a great temporary place for certain elements.

Change various attributes of your text and elements in the Inspector window.

Add a splash of brilliance with the Colors palette.

How to Create a Basic Web Page

Step 1



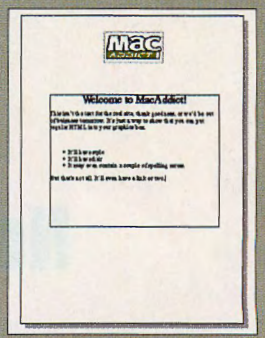
Launch Freeway and select New from the File menu. In the Document Setup dialog box that appears, set the size of your Web page, then select a folder for this Web site (if you're going to be creating more than one Web page). Click OK.

Step 2



Now you face a blank page—a menace creative types dread. To add a graphic, select the GIF box tool from the tool bar, then click and drag on the blank page to draw a box. Select Import from the File menu and choose a graphic to import from the dialog box that appears. Click the Open button to import the graphic, then resize the box with the arrow tool so it fits the graphic you just imported.

Step 3



Let's add some text then publish the page. Select the HTML box tool and draw a box below the imported graphic. Click the new box with the arrow tool—you can start typing the text you want on your Web page. Use the Inspector palette to adjust your text's size, alignment, and style.

Step 4

To publish, select Publish Site from the File menu. this creates HTML files in the folder you specified when you first created the Web page file.

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[Does not require Unreal to play.]

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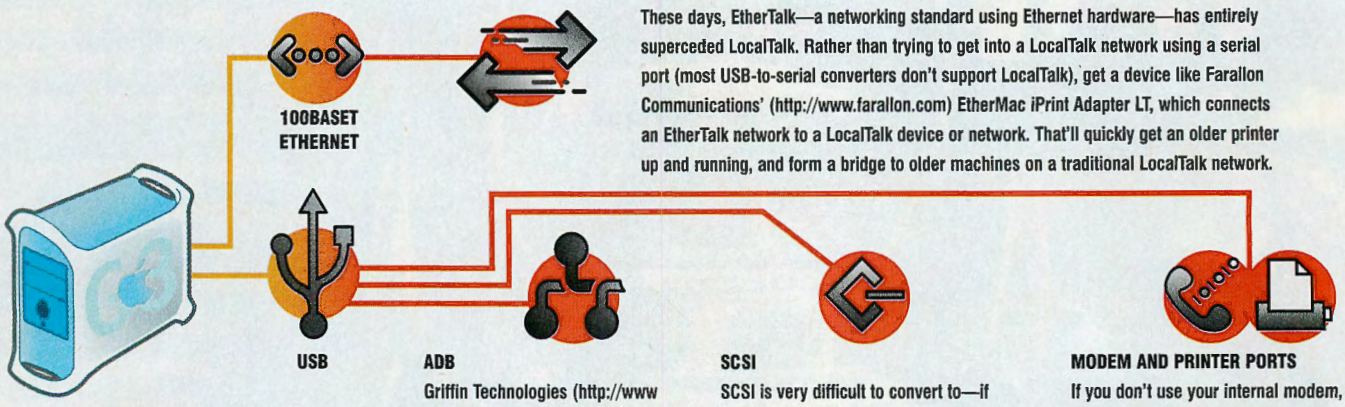
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Wiring Worries

Plugging old peripherals into new Macs

Now that Apple's back in black, many longtime Mac users (and PC-to-Mac converts) are buying their first new machines in years. Although it's dressed for success, the Mac's new look may leave old-timers scratching their heads over the loss of once-familiar ports—almost none of the Mac's original ports (printer, modem, SCSI, ADB, and, in the case of the iBook, microphone) remain. USB, the new port on the block, rules the school.

So do you have to junk all your old printers, modems, Zip disks, and scanners and start looking for newer USB peripherals? Not necessarily—but if you have the money, what the heck! The USB port can transfer data at a much faster clip than the older ADB, printer, and modem ports, and can support devices that supply the missing ports. How can you manage it? Here's a guide.—*IS*



LOCALTALK

These days, EtherTalk—a networking standard using Ethernet hardware—has entirely superceded LocalTalk. Rather than trying to get into a LocalTalk network using a serial port (most USB-to-serial converters don't support LocalTalk), get a device like Farallon Communications' (http://www.farallon.com) EtherMac iPrint Adapter LT, which connects an EtherTalk network to a LocalTalk device or network. That'll quickly get an older printer up and running, and form a bridge to older machines on a traditional LocalTalk network.

ADB

Griffin Technologies (http://www.griffintechnology.com) makes a device called the iMate that gives you an ADB port with all the trimmings. Compatibility with existing ADB devices is generally excellent.

SCSI

SCSI is very difficult to convert to—if you've got PCI slots, you'd be better off with a SCSI card. If you need to go through USB, Microtech International (http://www.microtechint.com) has developed the Xpress SCSI, which provides at least some compatibility.

MODEM AND PRINTER PORTS

If you don't use your internal modem, you can replace it with a Stealth serial port (http://www.geethree.com). Alternatively, Keyspan Technologies (http://www.keyspan.com) manufactures the Twin Serial Adapter ($79), which provides two serial ports from a USB connection.

Are You Becoming a Mac Addict?

It could happen, you know

After using your Mac for a while, you may find yourself developing strange and disturbing personality quirks. You may spend most of your waking hours staring into your monitor, stopping only briefly to find food. You may expound at length on the relative strengths and weaknesses of past Apple CEOs, programmers, and janitors. In short, you may be becoming a Mac addict.

Judging from the outpouring of letters from readers suggesting methods of diagnosing cases of Mac addiction, there's a great deal of interest in the problem. Still, uncertainty about how this disturbing mental condition spreads is the cause of many wasted hours.

Fear not—here at *MacAddict* labs, we've come up with an easy test to see how far down the road you've travelled. Called the MASI (Macintosh Addiction Screening Instrument), it determines whether you should seek counseling, medication, or—worse—employment at *MacAddict*.—*IS*

1. How many former Apple CEOs can you name?
A. 0-1
B. 2-3
C. All of them. Want their kids' names?

2. You're sitting in your office when you suddenly realize that you need a ruler and don't have one. Do you:
A. Start asking around for one?
B. Drop into Illustrator and draw a ruler?
C. Drop into BBEdit and write the PostScript code for a ruler?

3. How many different types of cables do you have per drawer in your house?
A. 0-2
B. 3-5
C. One of each

4. You're working at your machine when it unexpectedly crashes. Do you:
A. Shrug and start over?
B. Haul out Conflict Catcher?
C. Start up MacsBug and try to figure out exactly which line of assembly caused the crash?

5. How many hours a day do you spend browsing Mac-related Web sites?
A. 0-1
B. 2-3
C. All of them

6. David Reynolds, Mark Simmons, Nikki Echler, Robert Capps, Jennifer Ho, Jeff Titterton, and Kris Fong are:
A. A bunch of names
B. The editorial staff of *MacAddict*
C. The editorial staff of *MacAddict* as of a few months ago

For each A answer, give yourself 0 points. For each B answer, give yourself 2 points. For each C answer, give yourself 10 points.

If your score is:

0-10 points: Mac addiction has not yet begun. You're healthy, but is it worth it?

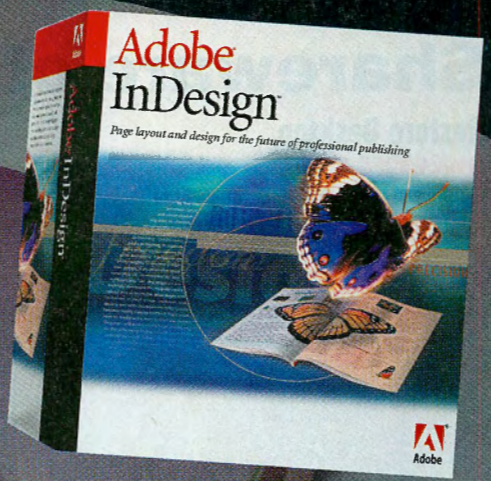
11-20 points: You have a minor case of Mac addiction. Watch out for the slow onset of madness, even though you're basically sound.

More than 20 points: You've developed a terminal case of Mac addiction. There's no real cure, but you'd probably enjoy designing a Mac-related Web site.

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Emulsion Direct Imaging Technology™ for scanning directly from the surface of film originals without glass interference. — U.S. Patent No. 5,574,274

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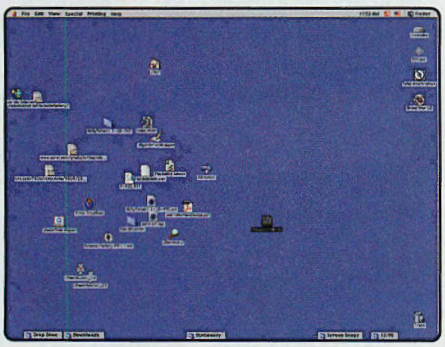
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Shareware of the Month

Restore Desktop

SHAREWARE FEE: $10
http://www.softwarium.com/rdmac.html
REQUIREMENTS: PowerPC, Mac OS 8 or later

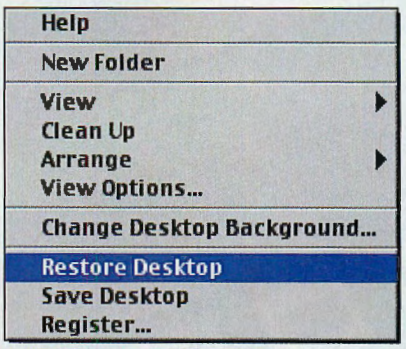
GO FROM THIS...



...TO THIS with Restore Desktop.



One of the most irritating things about switching monitor resolutions is that if you don't do it just right, icons end up all over the place—just like when your big brother came in and kicked over your Risk board, scattering pieces all around the living room. Here enters Restore Desktop. This contextual menu plug-in lets you save the position of all the icons on your desktop with a Control-click. When things begin to get messy again, Control-click to restore your saved configuration. Restore Desktop also restores icon positions when the screen resolution changes. Super spiffy!—*DR*



RESTORE DESKTOP'S CONTEXTUAL menu makes saving and restoring desktops a breeze —and it's easy to register from here, too!



Stalls from a Phantom CD?

Getting strange stalls on your iMac? It's normal to experience a delay while a CD spins up, but if it happens even when there's no CD in the drive, you may have encountered a bug in Apple's CD drivers. Apple has posted a correction to the problem on its Web site (http://www.apple.com/swupdates). Search for "iMac CD" and you'll find the iMac CD Update 2.0, which should get things moving again.—*IS*

All information in *Tech Info Tidbits* comes from Apple's Tech Info Library at http://til.info.apple.com.

New for the Mac

FILEMAKER PRO 5.0 (FileMaker, $295, http://www.synthetik.com)
The version number of FileMaker, one of the oldest Macintosh databases, has hit a new high (FileMaker first reached version 4 back in the 1980s, then backslid when Claris took over). The new FileMaker adds a redesigned interface, improved layout tools, and better interoperability with Microsoft Office. It has drawn some heat for restricting the number of networked users to ten in a 12-hour period unless the users purchase the $999 Unlimited version.

VIRTUAL PC 3.0 (Connectix, $179 with Windows 98, http://www.connectix.com)
Connectix has dominated the Windows emulation market on the Mac for the past two years. Its newest entry, Virtual PC 3.0, gives the emulator USB support, allows it to share an IP address with Mac OS, and upgrades the virtual sound card to a SoundBlaster 16.

INTELLIMOUSE EXPLORER (Microsoft, $74.95, http:// www.microsoft.com)



A REALLY GOOD product—from Microsoft? How very odd!

Although Microsoft hasn't had the best reputation among Macintosh users since the disastrous launch of Word 6, the IntelliMouse is simply a beauty.

The Intellimouse uses optical tracking in place of the usual ball, avoiding the potential clogged-roller problem so familiar to Mac users. Those folks who remember Sun's odious optical mice needn't have any fear—these rodents work on any surface and feel almost identical to a well-cleansed, standard mouse. —*IS*

FORGOTTEN REALMS

Baldur's Gate™

Immerse yourself in this quintessential medieval fantasy world.

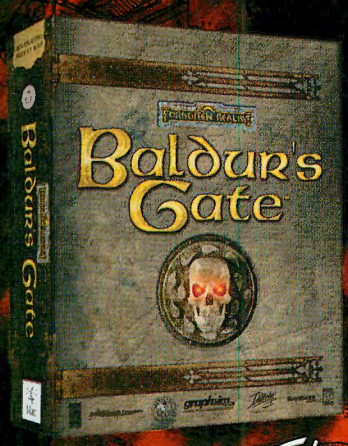
FOR Macintosh

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Wacky Mac Gifts

Stocking Stuffers for Your Favorite Mac Addict

It's that time of year again, the time when killer pine trees sing "O Tannenbaum" to lure unsuspecting holiday revelers to their deaths with their sweet, woody song. It's also the time when you have to start thinking about getting gifts for those Mac-loving people in your life. We've come up with a few new and interesting doodads to wrap in paper and put under one of those frightening spruces.—*DR*

Game Doctor

$34.99

http://www.digitalinnovations.com



So your copy of Warcraft II is scratched, there's that LAN game coming up next weekend, and you *really* want to play. What *do* you do? Try out the Game Doctor. This vaguely gun-shaped device uses filtered water to polish scratches and abrasions out of a CD's surface, leaving it ready to go again with any luck.

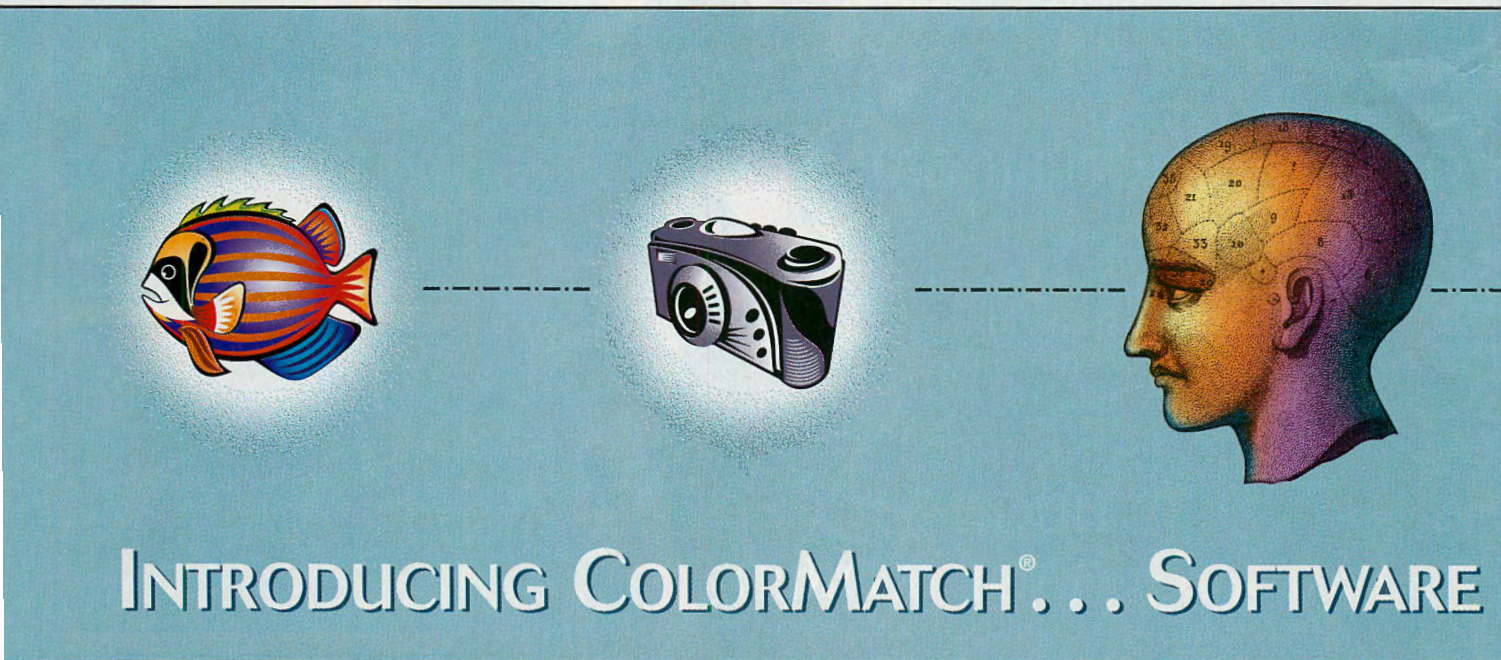
Bumper

$39.95

http://www.conceptkitchen.com



We all know someone who can't make a move without first consulting his or her Palm organizer. Although users prize the Palm for its portable convenience, life on the road (or in your shirt pocket) can be fraught with peril. The Bumper case for Palm organizers provides protection against spills and drops while keeping any Palm device fully functional—it includes a flip-up lid, an IR window, and a place to put the stylus.



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GET CONSISTENT COLOR FROM YOUR MIND'S EYE TO YOUR DESKTOP PRINTER WITH COLORMATCH FOR iMAC.®

Sure, you know the colors you want. It's just getting all your equipment to see eye to eye. Now, Radius' ColorMatch for iMac takes all the guesswork out of matching colors by eye. In a single click, ColorMatch analyzes your system

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Contest

Be the photographer of the millennium!
Take a picture, win a camera

We're looking for a few photographers with a taste for acquiring free new gadgets—know anyone who fits that description? If it fits *you*, all you have to do is take a great photo, use the demo version of Great Photo on The Disc to touch it up, and submit it to us—and you're in the running for a Nikon Coolpix 950 digital camera or one of two DVD-RAM drives.

The MacAddict staff will be judging photos in three categories: Best Overall Photo, Best Year 2000 Celebration Photo, and Best Pet Photo. The winner in the Best Overall category gets the grand prize of a Nikon Coolpix 950 and a full version of Great Photo. The winners in the Best Year 2000 Celebration and Best Pet categories get a DVD-RAM drive, DVD-RAM TuneUp, and a full version of Great Photo.

Find complete information about how to enter the contest in the Read Me file, inside the Software Architects folder on The Disc. Read the rules carefully before entering—they'll give you the full scoop. The contest closes January 31, 2000, and we'll announce winners in the April 2000 issue of *MacAddict*. Good luck—and please, no bribes under $100.—*DR*

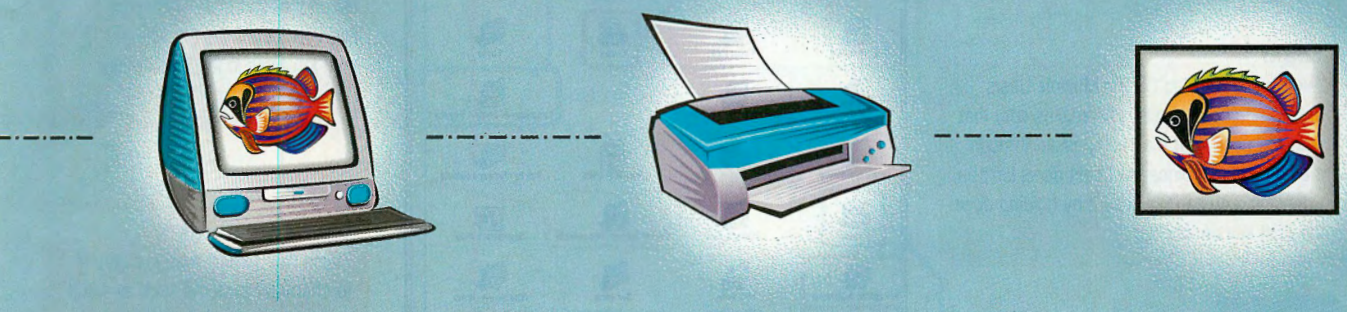


YES, WE KNOW IT'S an egret, not a heron, but see how great it looks—thanks to a few quick adjustments in Great Photo and an amateur photographer's steady hand.



ComputerSkins
$19.99
http://www.computerskins.com

If you or someone you know owns an iMac and is unnaturally attracted to shiny plastic things, the ComputerSkin dust cover may be just the ticket. The skins are actually two plastic covers (one for the monitor, another for the keyboard) that come in ten different colors. The plastic dust cover fits snugly over your iMac—except where the nylon mesh not-so-strategically covers the vents, leaving them open to whatever may settle from above. Still, it'll keep the Cheez-It crumbs out of your keyboard.



THAT LETS YOU PRINT WHAT YOU SEE.

and automatically adjusts your iMac so that what you see on the screen is what prints out on your printer. Perfect for Internet shopping and digital photography – wherever accurate, consistent color is important. ColorMatch comes with a color calibrator in your choice of five iMac colors. So get color coordinated today. Visit www.radiusdisplays.com and find out where to get your ColorMatch for iMac.

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scrapbook

We'll peer closely at things you wouldn't want to look at otherwise.

Inside Mac OS 9's System Folder

by David Reynolds

Sure, it looks complicated, but it's just the software that runs your Mac. No sweat. With Mac OS 9 come some new additions to the System Folder, which is turning into a well-populated land of cool and obscure widgets. Apple is doing its best to make sure this folder doesn't become a cluttered wasteland in which you can wander for days, although it's getting close. Here's our road map to help you figure out what's what in the System Folder.

Appearance

This folder holds all of the files related to the Appearance Control Panel, such as desktop pictures, sound sets, and theme files. Before Apple decided not to include multiple User Interface themes, this is where the old Techno and Gadget theme files would have lived. If you drop an image file (a GIF or JPEG) on the System Folder, it'll end up here for use as a desktop picture.

Finder

The Finder and the System are the dynamic duo that make up the Mac OS. The Finder is a specialized application that handles the way you talk to the System. It organizes and copies files, draws windows, keeps track of icons, and does just about everything else that applications such as Photoshop don't already handle.

Application Support

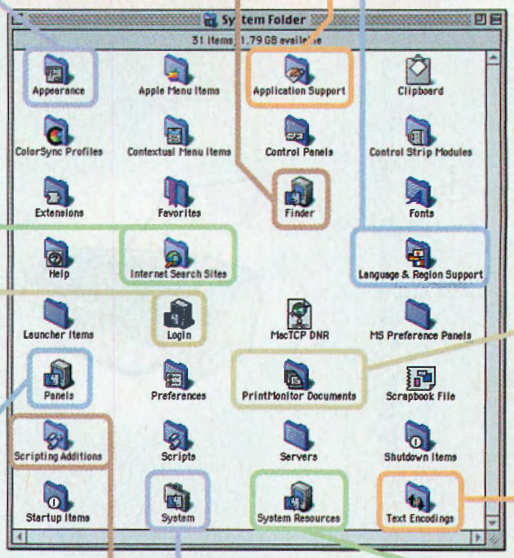
In olden times, application installers would put their support files (such as shared libraries) in all kinds of places in the System Folder. Now there's a special folder especially for them. Problem is, current installers ignore it. Adobe is a notable exception.

Language & Region Support

All those language kits that are now a part of Mac OS 9 need someplace to live in the System Folder. Inside, you'll find support files for language kits that you've installed (including Japanese, Korean, Chinese, Dutch, and the like).

Internet Search Sites

Sherlock plug-ins and channel folders reside inside this folder. Dropping a Sherlock plug-in on the System Folder will route it to the Internet Search Sites folder, where Sherlock can find it properly.



PrintMonitor Documents

When you're printing, the Mac OS creates what's known as a spool file on the hard disk. This spool file, which contains the actual print job, lives in the PrintMonitor Documents folder.

Login

Another part of Mac OS 9's Multiple Users feature, the Login System file makes sure that whoever uses your Mac has passed through the Login panel. Since the Login panel isn't an extension, you can't bypass it by holding down the Shift key on startup.

Text Encodings

These files (which map text glyphs to character systems such as ASCII or do more with text) are essential to using an HFS+ volume with your Mac. Don't move them or you'll be sorry.

Panels

The Multiple Users feature in Mac OS 9 restricts some users to a Panels interface—a buttonlike window reminiscent of the Launcher (that easy-access app). This is a simplified user interface, appropriate for kids or kiosks. The Panels System file (with the Finder icon) works with the Finder to provide that user interface.

System

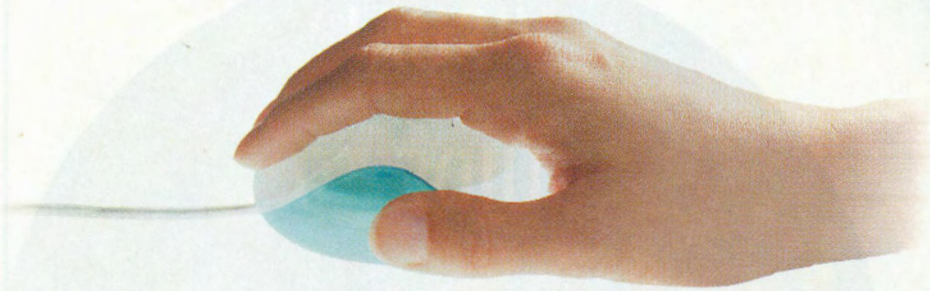
This is where it all happens: the magical file with control over your Mac's operation. The System suitcase contains all of that low-level code, and you can open it to install new system beeps and keyboard layouts. Open a copy of this in ResEdit, and you'll be able to peek at the inner workings of your Mac.

System Resources

Because the System suitcase was full, Apple chose to move many of the resource files out of that suitcase and into a separate System Resources file. It has lots of menus, strings, controls, and dialog boxes. Don't go poking around in here with ResEdit unless you make a copy and you have a serious hankerin' to get behind the scenes.

Scripting Additions

If AppleScript doesn't have the abilities you need, odds are someone has written a Scripting Addition that will cover you. Scripting Additions live in this folder and plug into AppleScript for more functionality.



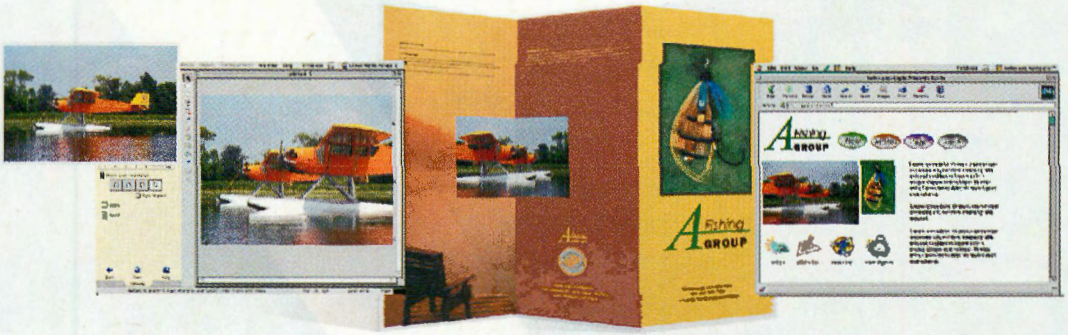
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Mac

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THE VISUAL GUIDE TO MAC OS 9 ARE YOU READY FOR MAC OS X?

Although it may seem that the Mac OS hasn't changed much lately, trust us—it has. Just go back to the Stone Age of Mac OS 7.6. Since then, Apple's added a robust Finder that can do lots of things at once, a whole new appearance, better stability, easy installation, pop-up windows, faster networking, better searching. The list goes on and on. Mac OS 9 builds on all of these, and it comes with its own killer new features list.

Apple calls Mac OS 9 "Your Internet Co-Pilot"—in other words, the ultimate Internet OS (at least it's a better slogan than "A Whole New Mac for $99"). While it's true that Mac OS 9 features more cool Net tools than its predecessor (Apple boasts that it has nine new Internet power tools), Sonata (the Mac OS 9 code name) is more than that. It's the biggest Mac OS upgrade in two years, with over 50 new features.

To show you around Mac OS 9 (the last revision before Mac OS X, which should be out next year) and help you decide whether or not to upgrade, we've prepared a visual tour of the new OS's top features.

MAC OS 9 AT A GLANCE

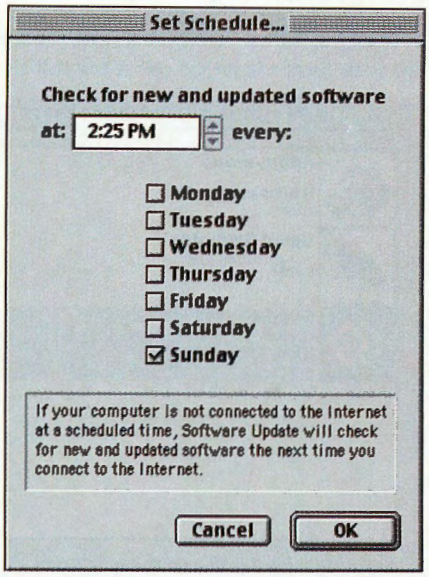
- PowerPC only
- Only supports Apple-branded Power Macintoshes (although clones may be able to use it)
- Requires 32MB of RAM with Virtual Memory turned on
- $99 or $19.95 through Mac OS Up-to-Date program
- $20 rebate for those who purchased Mac OS 8.5 or 8.6 (check with Apple for details)
- Available on CD-ROM only (duh)

BY DAVID REYNOLDS

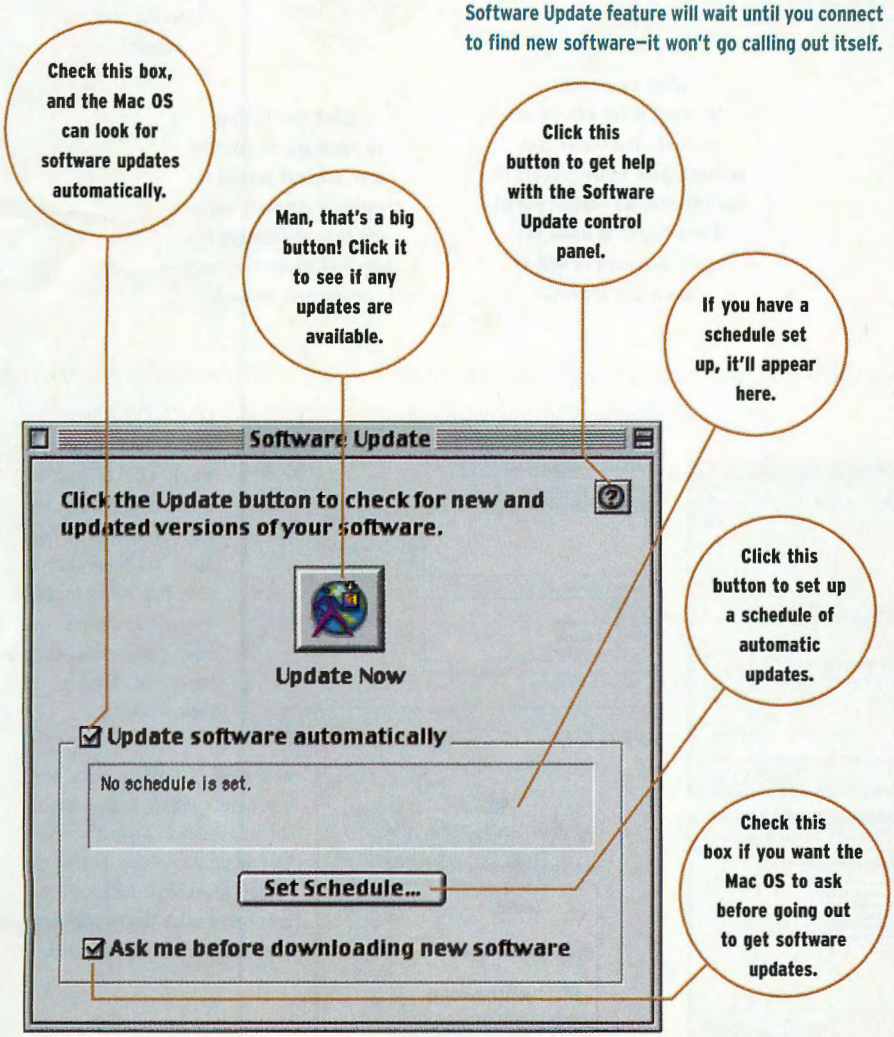
SOFTWARE UPDATE

Apple gets the Internet thing in a big way. So much so that it has built a way to update system software into the Mac OS. Think about this—when you plug in a USB device for the first time, wouldn't it be great if the Mac OS said something like, "I don't have the drivers for this, but I know where I can get them. Would you like me to download them now?" Or say there's a new bug fix for your Modem control panel. Wouldn't you like the Mac OS to let you know that it's available? With the Software Update feature in Mac OS 9, your Mac will keep your system software up-to-date with no muss, no fuss.

In case you think this is an all-new feature, Windows 98 users have been enjoying it for some time now. In Windows 98, however, it can be difficult to access the components that you want to install. With the Software Update control panel in Mac OS 9, getting updated components for the system is a snap. Here's an in-depth look at how Software Update works:



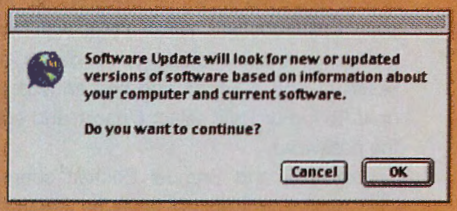
WHEN YOU CLICK the Set Schedule button in the Software Update control panel, you'll see this screen. Here you can set a time and specific days of the week when you want your Mac to look for software updates. If your Mac doesn't have a live Internet connection at the scheduled time, the Software Update feature will wait until you connect to find new software–it won't go calling out itself.



THE SOFTWARE UPDATE control panel has a simple, elegant interface on top of a powerful new means of keeping your Mac's system software current.

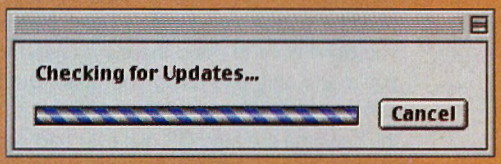
ANATOMY OF A SOFTWARE UPDATE

Here's how Software Update goes about finding new software for your Mac.



STEP 1

When you click the Update Now button in the Software Update control panel, Mac OS 9 will ask if you want to look for new software updates. Click OK to continue.

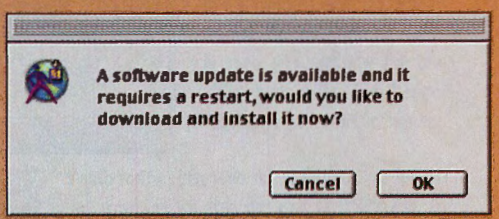


STEP 2

With the now-familiar barber pole–type progress bar, Mac OS 9 talks to an Apple server (all under *very* secure connections) to see if there are any new software updates for your Mac's operating system. You'll have to find application updates on your own.

STEP 3

When your system finds new updates, a window with a list of software updates that you can download will appear. Just check the boxes next to the software updates you want, then click the Install button.



STEP 4

Software Update gives you a chance to back out and lets you know if you will need to restart. Just click OK to download your new software!

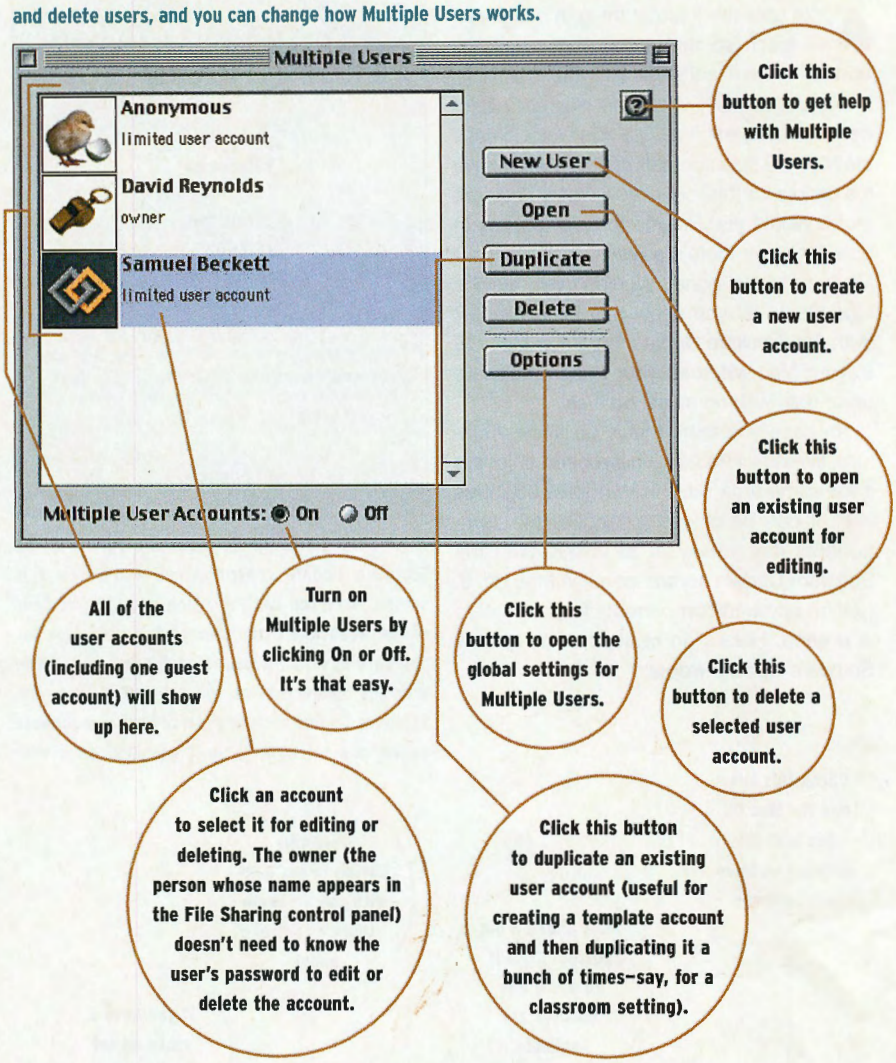
MULTIPLE USERS

Multiple Users is one of the sexiest—and most practical—new features of Mac OS 9. In a nutshell, Multiple Users maintains separate spaces for people who share the same Mac—a feature previously available only to Unix and Windows users. Multiple Users means that every member of your family can have separate accounts on a single Mac—complete with a separate space for documents, a separate set of preferences, and even a different look. When a Mac with Multiple Users enabled starts up, a dialog box pops up with a list of who has an account on it. To log on, just select a name and enter the password.

Say you and Samuel Beckett share a Mac, and you want to have an additional account for guests. When Sam logs on, he sees his preferred desktop, his files, and even his Internet settings; when you log on, you see yours. Guests using the Guest account see a third set of files and settings. Unless you authorize it, Sam can't touch your files or change the appearance of your setup. You don't have to use the Multiple Users feature if you don't want to—and there's no need to if you're the only one using your Mac. But it's an awfully nice feature if you *do* need it. It's the first time the Mac OS has ever had security built right in—tossing aside the PowerBook Password control panel. And since Multiple Users is built into Mac OS 9 (and not added on as an Extension), it works even with Extensions turned off. Here's a closer look at how Multiple Users functions:

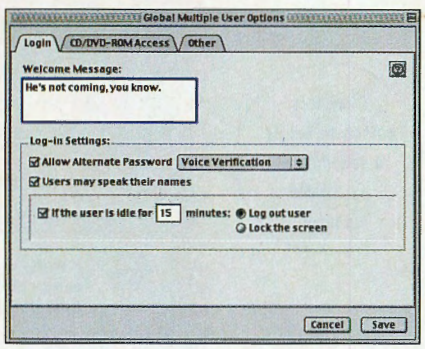
MAIN WINDOW

OPEN UP THE Multiple Users control panel, and it presents you with this window. Here you can add, edit, and delete users, and you can change how Multiple Users works.

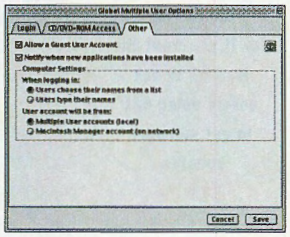


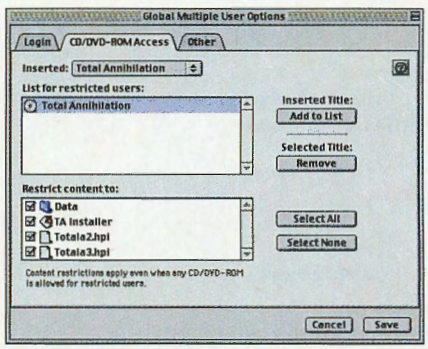
MULTIPLE USER SETTINGS

BY CLICKING THE TABS at the top of the Multiple User Options window, you access different settings windows. You can write a message to display in the log-in window, enable voice verification and voice recognition of names, and set whether the user is logged out after a certain amount of time has elapsed.

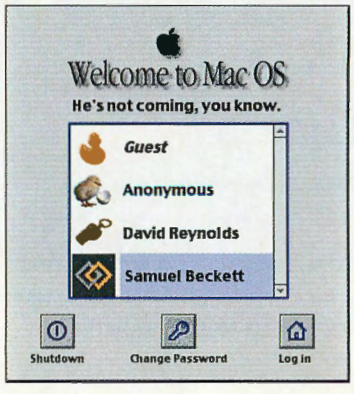


OTHER—A CATCH-ALL for everything that didn't fit into the first two tab categories. Here you can create a guest account that lets anyone log on in a restricted fashion. You can control whether account names appear on startup, and you can choose whether the account is located on the Mac's hard drive or on another source on the network. You can also decide whether you want notification if the user installs a new application.



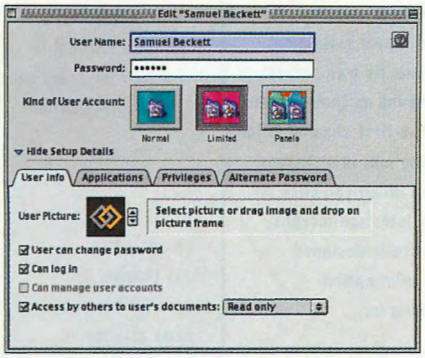


THE CD/DVD-ROM Access window lets you choose which CDs to restrict from users. You can also restrict access to content. You may want to turn this on to protect your kids from our staff videos—the acting could be harmful to their health.

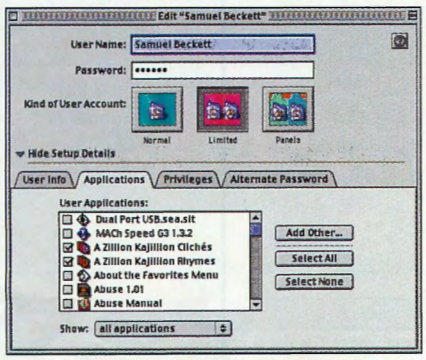


AND THIS IS HOW it looks when you have multiple user accounts set up as well as a guest account. This window pops up before the Finder launches. Just select a user name, click Log In, and enter your password. Bang! You're in.

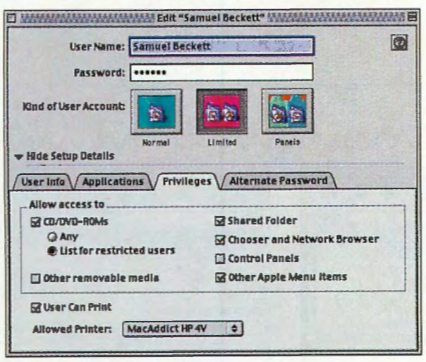
EDITING AN ACCOUNT



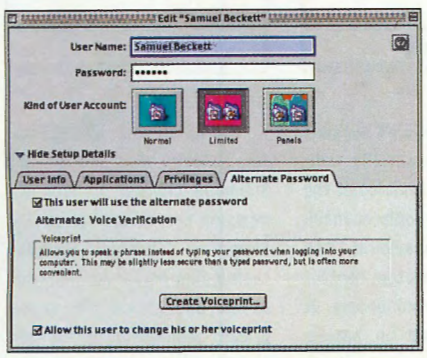
BY CLICKING the New User button in the main control panel, you can set up user accounts. The top half of the window lets you set the user name, password, and account type: Normal, Limited, and Panels. The Normal account disables the Applications and Privileges tabs; the Limited account lets you restrict application, printing, and CD-ROM access; and the Panels account creates a Launcher-like environment. At the bottom, a window with multiple tabs appears. Selecting any one of the various tabs lets you change a different aspect of that user's account. Here, we have the User Info window open, which lets you choose an image for your user (you can use one of the supplied images—mostly animals, sporting equipment, and, curiously enough, fruit—or you can drag one over from Scrapbook). It also lets you select the abilities you want to give that account, such as whether users can change their passwords.



WHEN YOU SELECT the Applications tab for a limited account, Multiple Users scans the hard drive for applications and lets you select which ones each user can run.



THE PRIVILEGES TAB controls printing, network, and removable media access for that user.

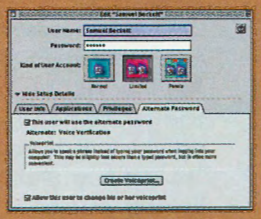


HERE IS WHERE YOU enable the best part of Multiple Users: the voiceprint and password feature. By enabling the alternate password function, the user can create a voice print and passphrase combination. Of course, you need a microphone for your Mac for this to work.

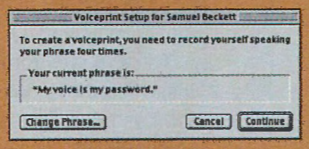
HOW TO CREATE A VOICE PRINT

The ability to log onto your Mac using just your voice is a cool—and somewhat dubious—new feature. Creating a voice print requires a little time and energy, and it doesn't always work right. Here's the low-down on making your own voice print.

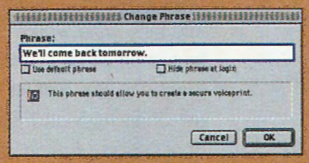
STEP 1 Open the Multiple Users control panel, select the user for whom you want to make a voice print, and click Open to enter the Edit window. Click the Alternate Password tab and mark the alternate password checkbox, then click the Create Voiceprint button.



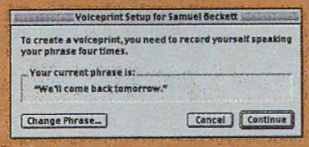
STEP 2 Next, you get the Voiceprint Setup dialog box. It shows your current pass phrase. Click the Change Phrase button.



STEP 3 Type a new phrase in the Change Phrase window that pops up. The phrase has to be long enough for a decent sample, usually five to seven words. You can also use the default phrase or hide the phrase at log-in to make your system even more secure. Click OK.



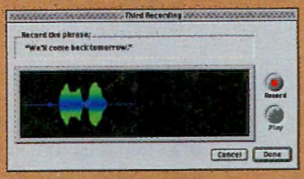
STEP 4 Now you're back at the Voiceprint Setup dialog box. You should see your new voice-print phrase. Click the Continue button.



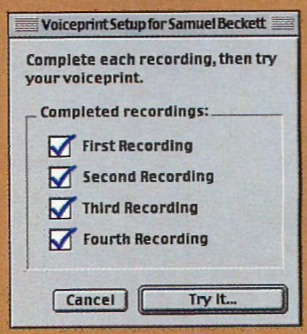
STEP 5 Here's where the work begins. You'll need to record your pass phrase four times in order to get a good sample, which is harder than it seems. To get started, click the Record First button.



STEP 6 In the Recording window, click the Record button and speak your pass phrase. Talk at a natural speed and volume. Once you've recorded your pass phrase, click Stop. Mac OS 9 will tell you if it recorded a good sample—this doesn't always happen. You'll need to record four good samples, so save your vocal cords.



STEP 7 Once you've recorded four good samples, click the Try It button, which lets you try logging in using just your voice.

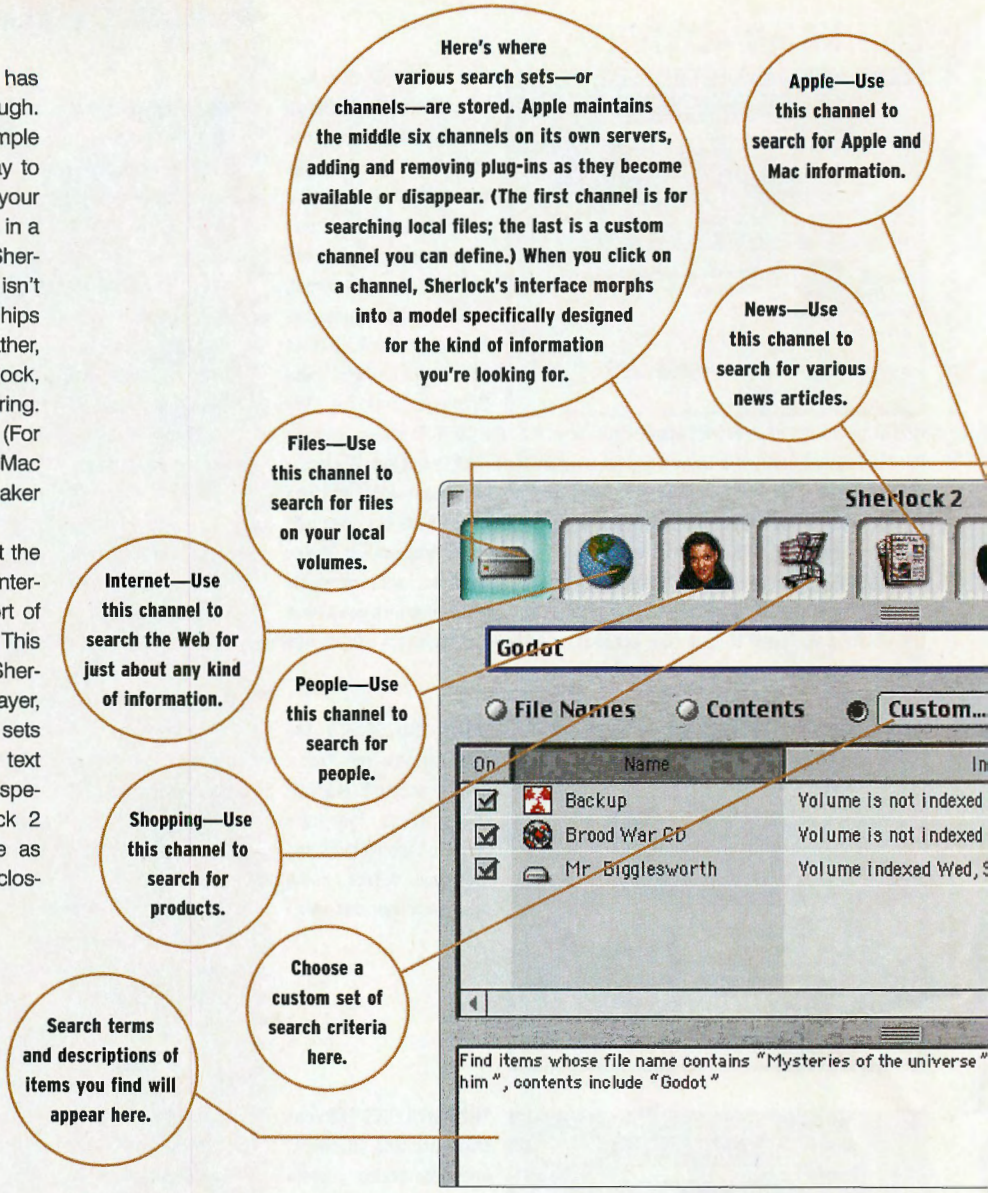


STEP 8 Success! Remember—this isn't just speech recognition technology. The voice password actually analyzes the sound of your voice to verify your identity and let you in. Even if someone tries to imitate your voice, they're not going to make it past Multiple Users.

SHERLOCK 2

Okay, so the Sherlock technology has been hyped beyond belief. Fair enough. But there's a reason for that beyond simple marketing hype. Sherlock is a great way to search for information—whether it's on your hard drive or on the Internet—and it's all in a single Mac OS interface. In Mac OS 9, Sherlock has been renamed Sherlock 2. This isn't to be confused with Sherlock 2.1, which ships with Mac OS 8.6—or maybe it is. Rather, Sherlock 2 is the next-generation of Sherlock, not just a decrease in version numbering. Think of it as Sherlock 2 version 1.0. (For those of you who've been around the Mac world for a while, remember how FileMaker went to FileMaker II.)

Taking a cue from the folks who built the QuickTime Player interface, Sherlock's interface has been rebuilt with the same sort of brushed-metal, channel-well interface. This interface style works more effectively in Sherlock than it does with the QuickTime player, thanks to the limited number of search sets (or channels) and each icon's pop-up text description of each icon. Channels are special sets of Sherlock plug-ins. Sherlock 2 ships with seven, and you can create as many of your own as you like. Here's a closer look at the interface:



APPLE CHANNELS

Aside from the Find File and My Channel channels (on the far left and far right, respectively), Apple has included six specialized channels. Each channel is maintained on Apple's servers, which will check for new or outdated plug-ins, add new plug-ins, and generally keep things shiny and bright. Here's a look:



INTERNET

SHERLOCK SHINES at searching multiple Internet search sites, and Sherlock 2 refines the process by moving the gratuitous advertising banner to its own frame below the content window.



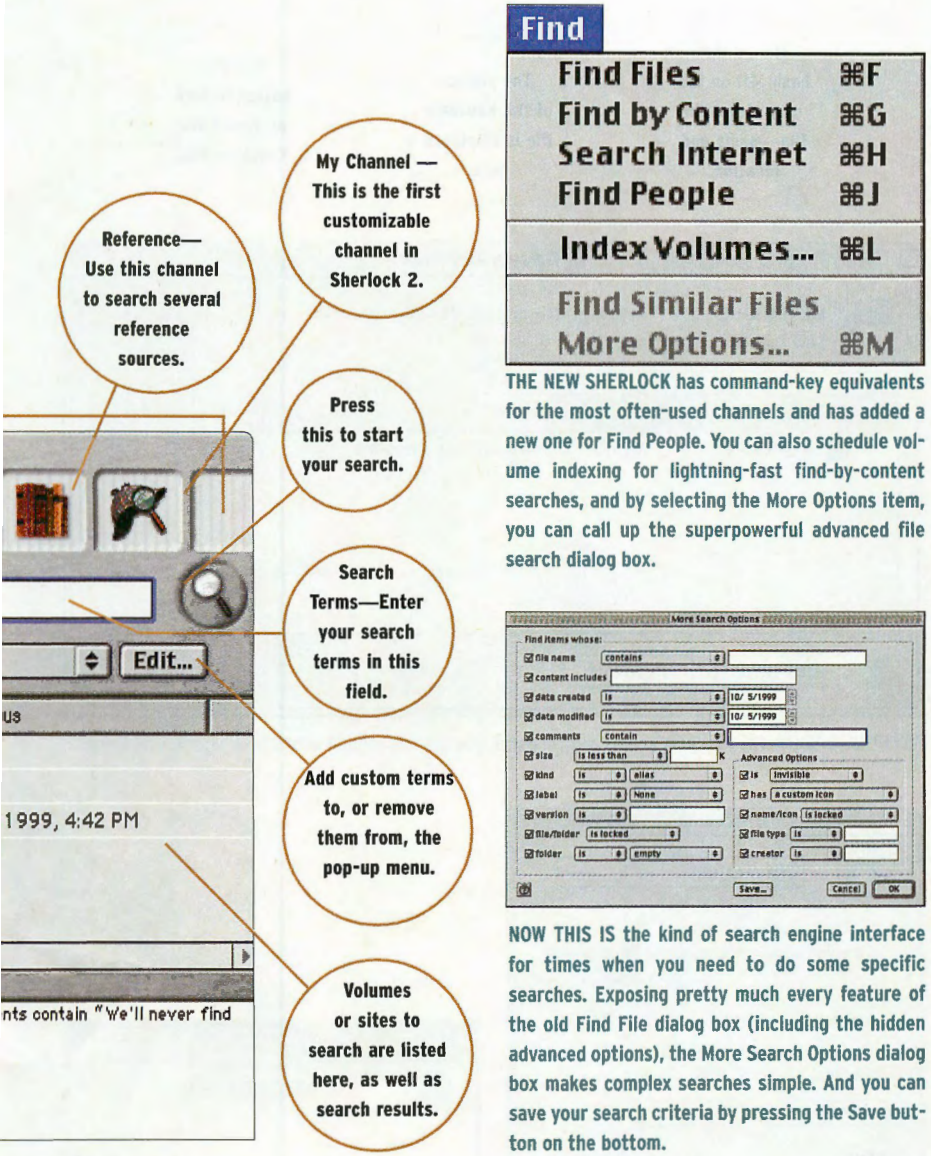
PEOPLE

LOOKING FOR SOMEONE special? Stalkers and the socially well-adjusted alike will rejoice at the addition of the People channel. It lets you search several LDAP servers (these maintain contact information) to find people. It offers information on names, email addresses, and phone numbers—sometimes.



SHOPPING

IF YOU'RE IN THE MARKET for some dignity, use Sherlock 2's Shopping channel to look for deals on e-commerce sites. The Shopping channel includes search plug-ins for auction sites as well, and reports item names, prices, availability (either how fast items are shipped or how long the auction will last), and where it found items.



THE NEW SHERLOCK has command-key equivalents for the most often-used channels and has added a new one for Find People. You can also schedule volume indexing for lightning-fast find-by-content searches, and by selecting the More Options item, you can call up the superpowerful advanced file search dialog box.

NOW THIS IS the kind of search engine interface for times when you need to do some specific searches. Exposing pretty much every feature of the old Find File dialog box (including the hidden advanced options), the More Search Options dialog box makes complex searches simple. And you can save your search criteria by pressing the Save button on the bottom.



HEADLINES

THE NET MEANS NEWS, and using Sherlock's News channel, you can search the Net for the latest. Though results don't always match your criteria, News ranks them by date for maximum freshness. For some reason, the channel has included Quicken.com as a headline news provider.



APPLE

AS YOU WOULD EXPECT, Apple has included a plug-in to search the Macintosh Products Guide, the Tech Info Library, and the Apple Web site. Odds are you'll find what you're looking for here, but you may find more than you bargained for—or at least in languages other than the ones you speak.



REFERENCE

ENCYCLOPEDIA BROWN, it's time to close up shop. Sherlock is going to bury you. With the ability to search through a dictionary, an encyclopedia, and a thesaurus, the Reference channel can answer your questions. Funny, though—references to Phil Schiller's moshing abilities seem to be missing.

MAKE YOUR OWN CUSTOM CHANNEL

Sherlock 2 lets you create as many custom channels (plug-in sets) as you want. Here's how to go about it.

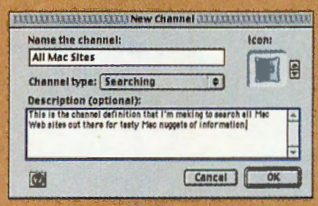
STEP 1

Choose New Channel from the Channels menu.



STEP 2

Type in a new name for your channel, select an icon from the well on the right (or just drag a new one into the well from Scrapbook or elsewhere), select a channel type, and type in a description of your channel. Press OK and quit Sherlock 2.



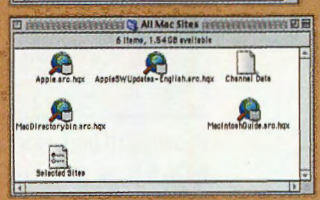
STEP 3

Open the Internet Search Sites folder inside the System Folder. Inside, you'll see the folders for each channel.



STEP 4

Copy the Sherlock 2 plug-ins into the Internet Search Sites folder with the name of the channel.



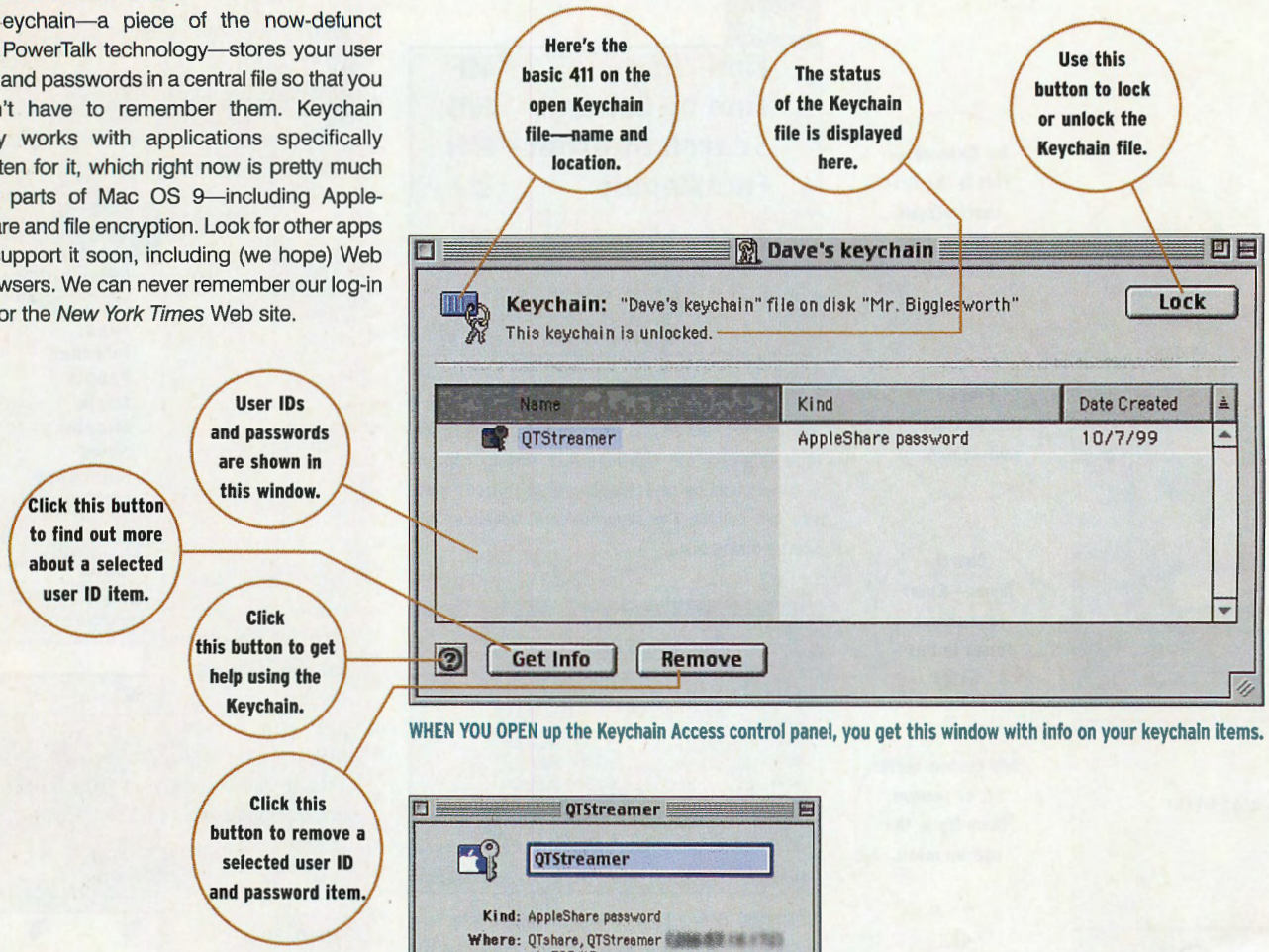
STEP 5

Close the folders and launch Sherlock 2. Click your new channel icon, and you will see the plug-ins that you've just moved. Congratulations!

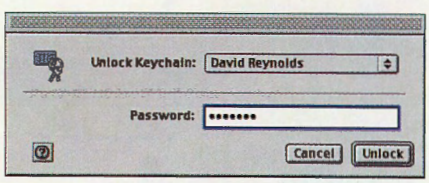


KEYCHAIN

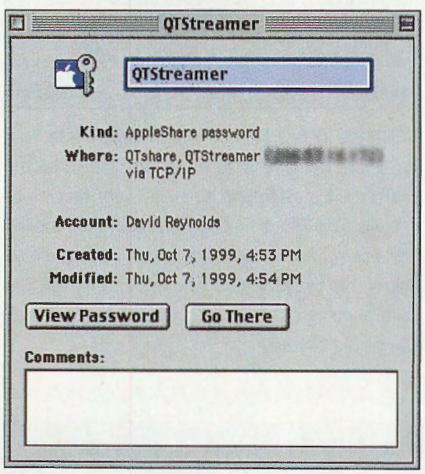
Keychain—a piece of the now-defunct PowerTalk technology—stores your user IDs and passwords in a central file so that you don't have to remember them. Keychain only works with applications specifically written for it, which right now is pretty much just parts of Mac OS 9—including AppleShare and file encryption. Look for other apps to support it soon, including (we hope) Web browsers. We can never remember our log-in ID for the *New York Times* Web site.



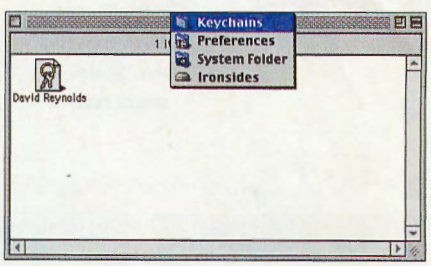
WHEN YOU OPEN up the Keychain Access control panel, you get this window with info on your keychain items.



IN ORDER TO UNLOCK a Keychain file, you'll have to fill in this one important field. You can also unlock other Keychain files from here.



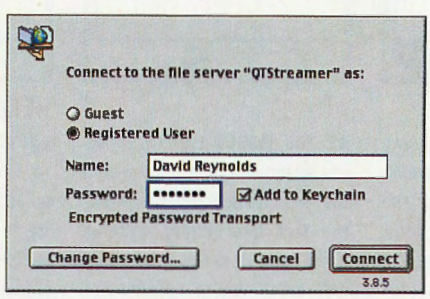
WHEN YOU RECEIVE INFO on a Keychain item inside the Keychain menu, you get a familiar-looking window with information about the item—including a way to view the password and the ability to go to that item.



KEYCHAIN STORES FILES inside the Preferences folder in the System Folder—if you ever need to find yours. It wouldn't hurt to back this file up now and then.



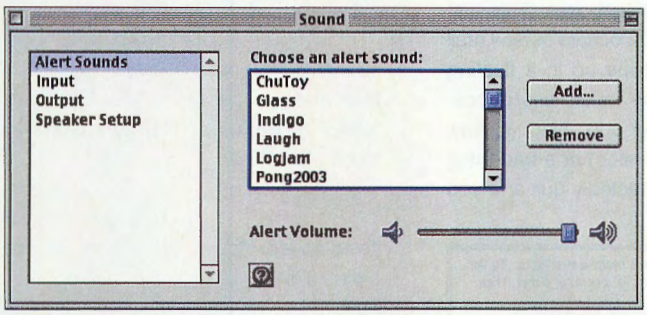
THE KEYCHAIN SHIPS with several built-in digital certificates. These certificates help you make sure downloaded software and the like is actually from the source it says it's from.



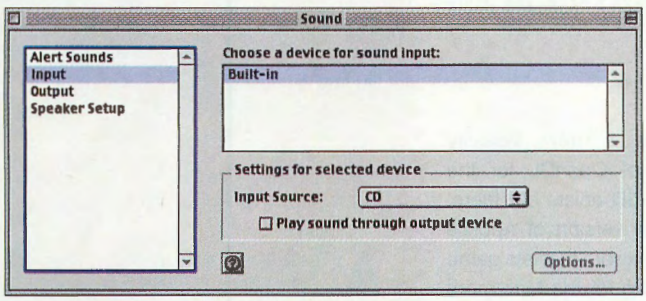
IN MAC OS 9—if the server software supports it—you'll see a little Add To Keychain checkbox. Check it, and you've added the user ID and password to your Keychain.

SENSATIONAL SOUND

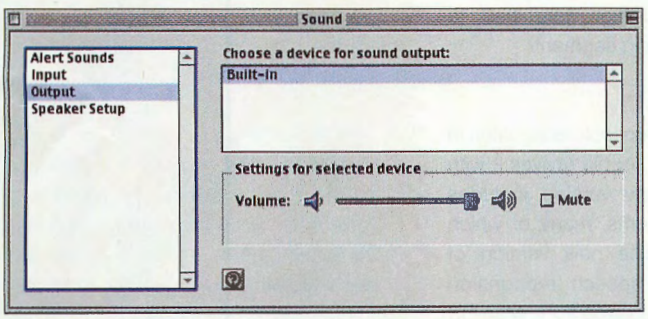
Reversing an earlier trend, Apple has once again split the Monitors & Sound control panel into a separate Monitors control panel and Sound control panel. The Monitors control panel works about as you would expect; the Sound control panel, on the other hand, has some surprising new twists.



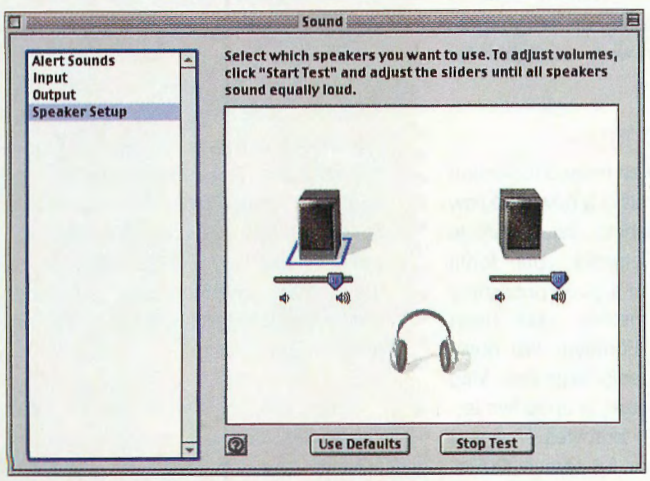
MAC OS 9 HAS 15 system sounds—up from the handful previous versions shipped with. Some of them are way cool. We like the Submarine sound for its subtlety.



THE SOUND IN portion of the Sound control panel works the same way as the old version.



LIKEWISE, THE SOUND OUT portion of the Sound control panel has about the same functionality as the old version.



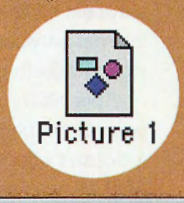
APPLE HAS THOUGHTFULLY included a way to test your multimedia setup with Speaker Setup. It shows speaker balance and whether you have headphones plugged in, and it even allows you to alternate white noise between speakers to adjust the balance. Slick.

HOW TO ENCRYPT A FILE

Mac OS 9 has the ability to encrypt files, making them unreadable to anyone without Mac OS 9 and the password. This ability goes hand-in-hand with the Keychain. (It stores user IDs and passwords, remember?) Here's how you encrypt a file.

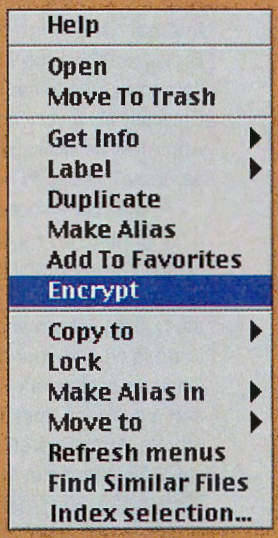
STEP 1

Start with an ordinary file.



STEP 2

Control-click the file and select Encrypt from the contextual menu.



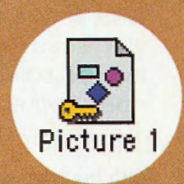
STEP 3

Enter a password to encrypt the file.



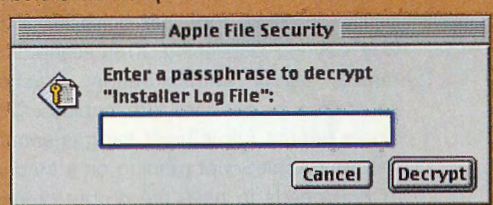
STEP 4

A key badge appears on the file's icon, indicating that it's encrypted.



STEP 5

When you try to open the file, you get a dialog box requesting the password before the file opens.



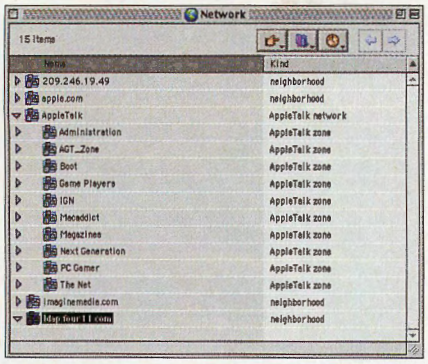
SIX OTHER KILLER FEATURES

A BETTER NETWORK BROWSER

Mac OS 9 is moving toward using TCP/IP as its networking protocol of choice, and this is apparent in a nifty new addition to the Network Browser, which has the ability to browse for Internet services in addition to AppleTalk services. It lets you see FTP, Web, and other Internet services on an intranet without having to know the exact URL or IP address.

This ability is great for intranets (where you can properly configure the network), but it doesn't offer *too* much to the home user. After all, you probably don't want the entire Internet showing up in your Network Browser. When the intranet is properly configured to take full advantage of the Network Browser, it's a very cool tool—it makes non-AppleTalk networks almost as friendly to use as AppleTalk-based networks.

Apple has also added File Sharing over the Internet. This means you can turn on File Sharing while running Mac OS 9, and then log on using your IP address—even across the country—from another Mac. All you have to do is type in your Mac's IP address in the Chooser or Network Browser of another Mac, and you're off and running. This used to require AppleShareIP, but works with personal file sharing in Mac OS 9.



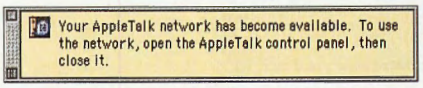
THIS BIT OF SOFTWARE is similar to previous Mac OS versions, but there's something new here—TCP/IP services. Notice that you can also see IP addresses and domain names in the browser. This is the shape of things to come as Apple moves toward making TCP/IP its primary networking protocol.

INTERNET-SAVVY APPLESCRIPT

With the release of AppleScript 1.4, AppleScripts can now work over TCP/IP. This lets a Mac running an AppleScript in San Francisco remotely control a Mac in Tulsa. While Apple points to using this as a Web publishing workflow tool, the possibilities go way beyond publishing. Troubleshooting, remote server administration, practical jokes—the possibilities are endless. This whole remote AppleScript thing is secure, too. Any AppleScript running on a Mac via TCP/IP needs to have the proper credentials (that is, successfully meet a challenge) in order to run.

EASIER ERRORS

The Notification Manager in Mac OS 9 now displays nonmodal dialog boxes. This just means that when an error occurs or new mail arrives, a notification pops up in a floating window. Errors are now much less obnoxious, which can be a good thing (if, say, Eudora needs your attention) or a bad thing (if the Finder has unexpectedly quit and you ignore it).



THAT'S RIGHT—THE NETWORK'S BACK, and you're gonna be in trouble.

GREAT GAMING

Mac OS 9 includes a new Velocity Engine–savvy version of OpenGL for the hard-core gamers and 3D artists out there. Also included is a new version of Apple's Game Sprockets, the software that lets game developers create games for the Mac more easily. It's great to see renewed support for Game Sprockets, adding more heft to Apple's blooming gaming segment.

SPEECH AND LANGUAGE

Just when you thought speech recognition in the Mac OS was dead, Apple revives it with PlainTalk 2.0. The new version includes nearly 90 speakable items, many of which are Internet-related. The new version of AppleScript includes speech recognition support. Also on the language front, Mac OS 9 offers new language kits with the ability to input and display tons of languages. Previously, these kits were available for purchase separately.

NEW PUBLISHING TOOLS

While ColorSync has been revised to version 3.0 in Mac OS 9 (integrating a new workflow model), the new publishing star feature is FontSync. FontSync checks your fonts against those included in a given publishing project. If the font metrics have been tweaked, for example, FontSync will notify you. Oh, and for those *really* large files, Mac OS 9 now supports file sizes of up to two terabytes. Yes, that's right—terabytes. Now you can watch that two-hour full-screen QuickTime movie from a single file.

David Reynolds endured hours of taunting from his coworkers while trying to get the voice log-in feature to work properly.

SHOULD YOU UPGRADE?

This is the stickiest question of all: Should you make the jump to Mac OS 9? Here's our patented, nonsticky, Teflon-coated answer.

UPGRADE IF you have a fairly high-speed 603e (say, 200MHz) or faster Mac and your machine has more than 32MB of RAM. It's the best upgrade since Mac OS 8.

AVOID UPGRADING if you have a lower-speed Power Macintosh or just barely 32MB of RAM.

DON'T UPGRADE if you have less than 32MB of RAM or a 680X0 Mac. In fact, it's time to start thinking about buying a new Mac.

THE ROAD TO MAC OS X

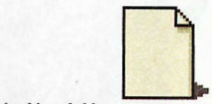
As possibly the last major Mac OS update until the release of Mac OS X in 2000, Mac OS 9 gives us our first glimpse of how Mac OS X will work. Here are the major points in Mac OS 9 that lead us to Mac OS X.

- CarbonLib—With this code library, Mac OS 9 will be able to run applications that have been rewritten for Mac OS X. While these applications will *run* on Mac OS 9, they won't get the spiffy benefits (such as protected memory) that they receive under Mac OS X. Carbon application packages can't be shared.

- Package First Aid—This companion to Disk First Aid repairs folders mistakenly configured as *application packages*, carbonized (or Mac OS X) applications. The reason they can be mistaken for folders is that application packages are really just special folders. Confused? Don't be. If you have a folder that's behaving strangely, drag it onto Package First Aid to see if that fixes the problem.

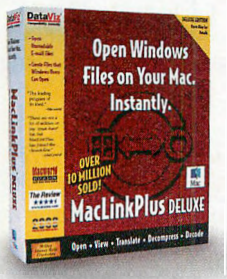
- Multiple users—Based on Unix, Mac OS X will most likely have true multiuser support—just like Mac OS 9.

- File encryption—Also a feature of Unix, OS-level file encryption is here under Mac OS 9, and is likely to make it into Mac OS X.



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eeny meeny miny iMac

ON THE DISC: Nothing! We're talking about hardware here!

Photographs by Aaron Lauer

The new iMac offers more transparency, more power, more choices, more colors, and, uh, more!



by Robert Capps

Thirteen months and 2 million unit sales after the iMac first hit store shelves, Steve Jobs took to the stage at Cupertino's Flint Center and topped off four months of blistering announcements with a brand-new version of our favorite gumdrop. We were still reeling from the unveiling of the fruititious iBook and digging through the tech specs of the new G4s when a squeaky-cheeked Jobs dropped a whole new family of iMacs right on our heads. This new iMac line boasts three distinct models (iMac, iMac DV, and iMac DV Special Edition), even more transparent cases, performance improvements across the board, and a sixth—yes, sixth—color.

The new tint on the block is Graphite, the same luscious shade of gray (only Apple could make us call a shade of gray luscious) that the new Power Mac G4s wear so well. This sleek color represents the top of the new iMac food chain—the iMac DV Special Edition. The biggest and baddest of the new iMacs, it's got everything the others have and more: more RAM, more hard drive space, and a bigger price tag—$1,499—to match.

The new iMac flagship, however, is clearly the middle-rung iMac DV (digital video). You can pick up one of these for the price you'd have paid (or did pay) for a previous iMac—$1,299—and it comes in the five familiar iMac flavors. The iMac DV features a DVD-ROM drive, FireWire connectors, iMovie software for editing video captured from a digital camcorder, and a VGA monitor port for adding an additional monitor.

The final member of the redesigned iMac clan gets to keep the plain and simple iMac name. It comes with a run-of-the-mill CD-ROM drive and is available only in Blueberry—but don't cross it off your holiday shopping list just yet. Like its DV and DV Special Edition brethren, this retooled iMac has a fast G3 processor, more RAM, a better sound system, a Rage 128 graphics accelerator (the same as in the beefy new G4s), a slightly more compact see-through case design (cooled by convection, eliminating the need for a fan), and all the standard iMac amenities you're used to seeing—a 56-kbps modem, 10/100Base-T Ethernet, and a solid software bundle. The biggest draw here, however, is the price tag—$999. If that's still too high for you macaroni-and-cheese types, Apple worked with CompuServe to expand the latter company's $400 rebate policy to Apple computers. That means if you buy a new iMac and sign up for three years of Internet service, your new Blueberry powerhouse will set you back only $599. Now *that's* a deal.

If it sounds like a deal you just can't refuse—well, happy shopping. If you're still sitting on the fence (which sounds mighty uncomfortable to us), we've put together a quick look at the iMac's coolest new features to help you avoid making any rash decisions.

iMac iNspected

iMac iMprovements



iMac ($999)

- Blueberry only
- 350MHz G3 processor
- 64MB of RAM (expandable to 512MB)
- 6GB Ultra ATA hard drive
- Rage 128 graphics accelerator (through a 2X AGP interface)
- Two USB ports
- 56-kbps modem
- 10/100Base-T Ethernet
- Slot-loading 24X-speed CD-ROM drive



iMac DV ($1,299)

- Blueberry, Strawberry, Lime, Grape, or Tangerine
- 400MHz G3 processor
- 64MB RAM (expandable to 512MB)
- 10GB Ultra ATA hard drive
- Rage 128 graphics accelerator (through a 2X AGP interface)
- Two USB and two FireWire ports
- 56-kbps modem
- 10/100Base-T Ethernet
- Slot-loading 4X-speed DVD-ROM drive with video playback
- Apple iMovie software



iMac DV Special Edition ($1,499)

- Graphite only
- 400MHz G3 processor
- 128MB RAM (expandable to 512MB)
- 13GB Ultra ATA hard drive
- Rage 128 graphics accelerator (through a 2X AGP interface)
- Two USB and two FireWire ports
- 56-kbps modem
- 10/100Base-T Ethernet
- Slot-loading 4X-speed DVD-ROM drive with video playback
- Apple iMovie Software

Mac OS 9

As we write this, the new iMacs are shipping with Mac OS 8.6. As you read this, they should be shipping with Mac OS 9 (see "A Visual Guide to Mac OS 9," p34). If you bought one of the models with 8.6, fear not—the Mac OS Up-to-Date program is in effect, and you can get a fresh Mac OS 9 CD sent to you for less than $20. See http://www.apple.com/macos/uptodate for more information.

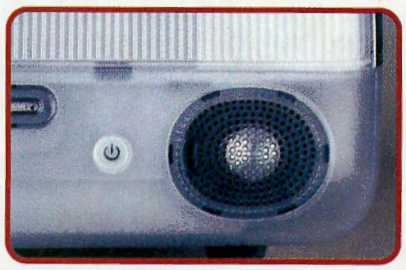
Redesigned Case

The new iMac comes with a new, slightly smaller (half an inch shorter in length, five pounds lighter), and slightly more transparent exoskeleton. In a feat of engineering, Apple managed to remove most of the metallic shielding that prevents you from really checking out the guts of an original iMac. Now you can see it all. Oh, and this makes the fruit flavors even tastier—er, we mean, brighter.



Slot-Loading DVD-ROM

Apple has done away with that precarious CD-ROM tray in favor of a slot-loading device, much like those you find in single-disc-capacity car stereos. In the $999 iMac, this is a normal CD-ROM drive. In the DV versions, it's a 4X DVD-ROM drive. Thanks to the Rage 128 accelerator chip, the Apple DVD-ROM drives feature full DVD-ROM video playback.



Superior Sound

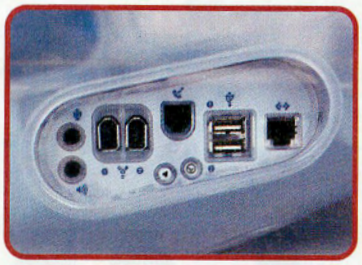
Looking to improve the iMac's lousy sound performance, Apple enlisted the help of audio wizards at Harman/Kardon (http://www.harman.com). The result is higher fidelity and a speaker system with a broader audio range. With Apple's design team, Harman/Kardon also developed a subwoofer specifically for the new iMac. It runs an extra $100 and looks like a glass cake mold, but should add some real bounce to your iMac's audio.

Rage 128 Graphics Accelerator via an AGP 2X Interface

This is exactly the same fast and powerful graphics support you'll find in Apple's top-end G4s. You'll have no trouble playing all the latest games, including Quake III Arena, on any of these iMacs. As a bonus, you can now get all three screen resolutions at millions of colors.

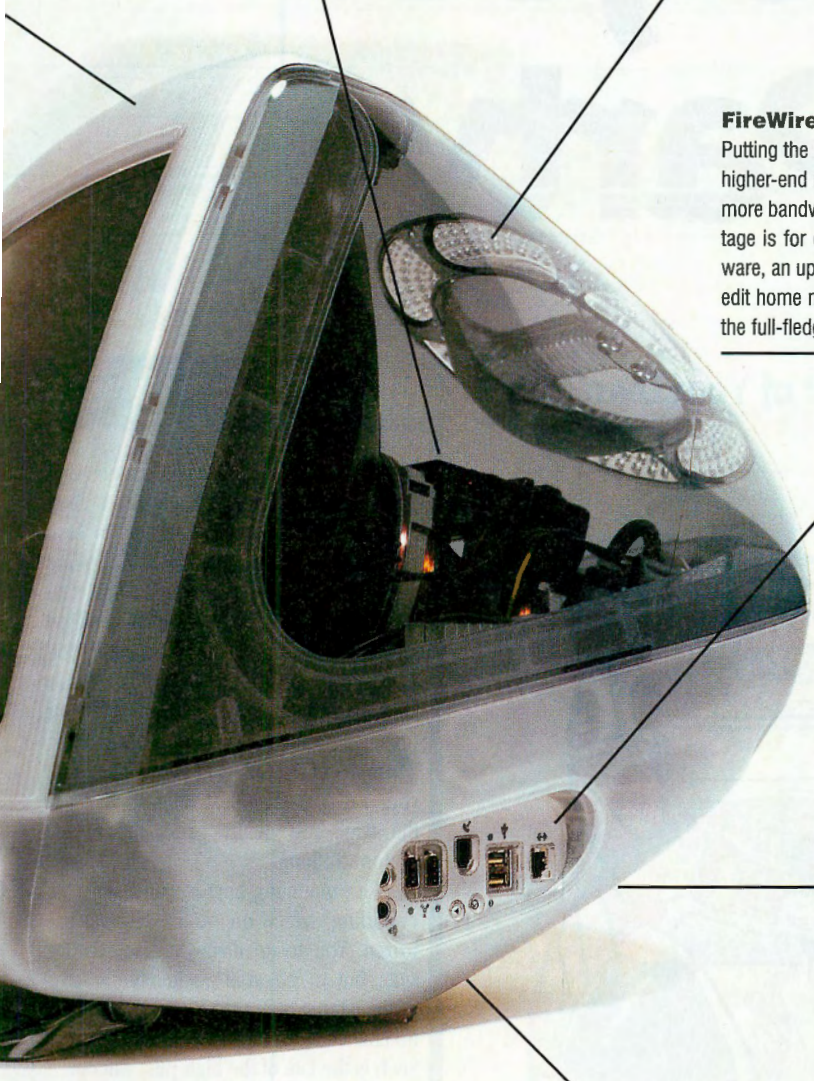
Ventilation

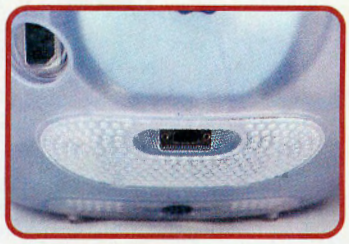
Thanks to a little convection-cooling trickery, the new iMac—like the original Mac—comes sans cooling fan. The upshot? This iMac is dead quiet, especially in sleep mode when the hard drive spins down. We are, however, a tad suspect of this feature, anticipating hot days when the new iMac may require a third party add-on fan to keep things cool, daddy-o.



FireWire

Putting the DV in iMac DV, Apple has included two FireWire ports on the two higher-end models. This bus enables connections to peripherals that require more bandwidth than USB allows (such as hard disks), but its primary advantage is for owners of DV cameras. Thanks to Apple's bundled iMovie software, an up-and-coming Scorsese can use the new iMac DVs to capture and edit home movies (FireWire-equipped camcorder sold separately). Also note the full-fledged reset button.



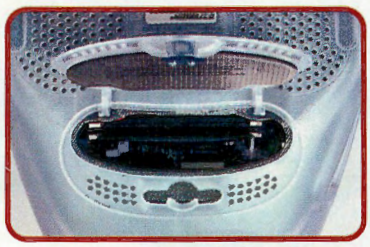


VGA Port

The new DV iMacs (special edition included) feature a bottom-side VGA monitor connector. For some stupefying reason, Apple didn't ship the DV iMacs with ready access to this port, but instead sent along a substitute panel you'll need to swap for the original if you want to hook up a second monitor. This port only allows mirroring on the second monitor.

Easy Access to RAM and Airport Card

Realizing that upgrading the RAM on previous iMacs was frustrating most owners, Apple added a convenient panel providing instant access to the iMac's RAM slots. A mere quarter unhinges the panel, and you can lock it with a common cable lock. Also behind this panel is a modified PC Card slot designed for the Airport card. With one of these installed, your iMac can work with the Airport base station or the iBook for up to 150 feet of wireless connection fun!



***MacAddict* editor Robert Capps thinks Apple Computer is the best darn computer company in Cupertino, California. Or one of the best, anyway.**

A Guide to the Perfect LAN Party

Frag Your Friends from the Comfort of Your Own Home

by Ian Sammis



ILLUSTRATIONS BY DAVE ARKLE

It's been a long, tough battle. As if your opponents weren't bad enough, time itself seems to have turned against you, either grinding the action to a halt or accelerating it to insane speeds. Still, you've persevered and are at the top. Better yet, ahead of you a less aware player is firing wildly down a side hallway, totally unaware of your presence. You glide up behind the target, a nimbus of light playing about the end of your rail gun. This last kill will give you the win. You gently press the mouse button. Nothing.

With mounting horror, you realize the crackling effect on your weapon has frozen. You try to throw yourself to one side, but to no avail—when time starts again, a burst of machine-gun fire you have no chance to avoid hurls you into the wall. Such is the fate of the high-ping warrior.

It doesn't have to be this way. High-speed networking equipment has fallen in price to the point where setting up a really good network can now cost less than buying a video card. Invite a few friends over, and you can throw the sort of Local Area Network (LAN) party that only used to be possible when professionals and academics found creative new uses for their office networks. On a LAN, you'll never have to put up with the bizarre effects of lag.

What Sort of LAN?

There are lots of ways to connect Macs together. Some, like using crossover serial cables, have become hopelessly outdated. Others, such as IRTalk, are simply too annoying to use. Of the various cabling schemes, two (Ethernet and PhoneNet) have survived and are the preferred choices for the modern LAN party. With the introduction of AirPort in the G4 and iBook models, a new contender has emerged.

THE BEST: WIRELESS LAN PARTY (AIRPORT)



SPEED: 12 Mbps
THE GOOD: Fast, no wiring mess
THE BAD: High cost
APPROXIMATE COST: $99 per machine

With the introduction of the iBook, a new sort of LAN party became possible. Freed from the constraints of wiring, a group of iBook-toting (or at least AirPort Base Station–toting) partygoers can now construct a wireless network. This option helps you avoid "Flying PowerBook Syndrome," and allows you to set up a truly fast ad-hoc network in a hurry. The only real disadvantage of this sort of scheme is the cost—AirPort cards cost almost $100 each. Still, a mix of AirPort and Ethernet lets iBook, G4, and new iMac owners join in the fun and put their machines anywhere without the otherwise inevitable tangle of wires.



■ AIRPORT BASE STATIONS let you party without the annoying snarl of cables to trip you up.

THE USUAL: 10BASET (ETHERNET) OR 100BASETX (FAST ETHERNET)



SPEED: 10 or 100 Mbps, respectively
THE GOOD: Cheap, fast networking
THE BAD: Poor wiring job can leave wires strung haphazardly across all open surfaces
APPROXIMATE COST: Assuming modern machines (which don't need Ethernet cards), roughly $35 per machine for Fast Ethernet and $23 per machine for standard Ethernet

Hub-based Ethernet networks are the most common way to link up Macs these days. As long as the machines on the LAN are reasonably recent, this sort of network is cheap, relatively easy to set up, and very, very fast. Very modern Macs (post-iMac) have Fast Ethernet ports, which are ten times faster than the already quick Ethernet ports in older Macs. If enough players have Fast Ethernet, you might want to get a Fast Ethernet hub and play at the higher speed, but for most purposes standard 10BaseT is more than fast enough.

If you decide to use Ethernet, put some thought into your wiring scheme. Arrange the wires discreetly out of the way, not strung wildly across the spaces between the players and the food. Nothing ends a LAN party more sadly than a PowerBook suddenly flying out of someone's lap and hitting the floor—hard.

Ethernet networks are cool enough so we wrote an entire feature ("Hook Up Your Macs with Superfast Ethernet," Nov/97, p50) on the subject. We've put this article on our Web site for your perusal. Unless you've got the financial wherewithal for AirPort, Ethernet's your best bet.



■ THE HUB IS USUALLY LOCATED at the heart of an impressive collection of cables.

OUTDATED BUT USABLE: PHONENET (LOCALTALK)



SPEED: 230 Kbps
THE GOOD: Very, very cheap; no hub required
THE BAD: Very slow by LAN standards, wiring can get ugly
APPROXIMATE COST: Assuming an old-style printer or modem port, $20 per computer

The traditional way to set up a LAN party among Macs, PhoneNet is becoming very outdated. It requires that all players have serial ports, which are no longer standard equipment. LocalTalk's peak speed is a somewhat underwhelming 230 Kbps—much faster than a modem, but hardly the sort of breathtaking speed we've come to associate with LAN play. A definite advantage of PhoneNet is the connection scheme—each machine has two standard RJ-11 phone jacks, so you can string several machines together using standard phone wire. This allows play without a hub, which makes PhoneNet the usual setup for mobile LAN parties. If you or your friends own extremely old Macs (pre-Quadra), PhoneNet is likely the only feasible way to set up a network. Otherwise, Ethernet is definitely a much better option.



■ LOCALTALK CONNECTORS, the core of Mac networking since 1985, are slowly fading into history.

How to Make One Super Mega Hub

A hub is required for 10BaseT or 100BaseTX Ethernet networks. Think carefully about the placement of the hub, as you must connect every computer on the network to it.

Instead of buying a hub with enough ports for your network, you might be able to connect existing smaller hubs if they have Uplink ports. These ports allow you to connect hubs together to act as a single larger hub. But you can only hook up four hubs in this way—if you need more, you'll need a bigger hub.

LAN Party Visual Guide

To give you a sense of the possibilities and pitfalls of throwing a LAN party, we've illustrated a wildly ambitious—but only marginally successful—party. Watch out for the twisting cables—they're the bane of every LAN party.



DO NOT SERVE liquiform food or items likely to leave a residue, such as Cheetos, fondue, or soup.

NONLOCAL FOOD: At a good LAN party, food is accessible and network wiring is carefully stowed away. The food should be easy to transport and neat, like sandwiches, nuts, carrots, celery, and cookies.

TRANSPORTABLE BEVERAGES: Sodas and beer are the ideal drinks at a LAN party—they come in individual-size containers strong enough to survive a tumble.

MAKE SURE YOU SET a baseline on what sort of equipment guests should bring—unless you're throwing a retro-themed party, you don't want someone showing up with a Mac IIsi and a copy of Spaceward Ho.



CAREFUL CABLING: Make sure you run network cables through safe locations so children, pets, and guests won't trip over them. Do not run cables across heavily traveled areas or anywhere near the food.

Why Play a Multiplayer Game?

If you've never played a multiplayer game before, you're missing the best part of computer gaming. Besides offering the simple thrill of dispatching your friends and coworkers, multiplayer gameplay tends to be far better than human versus computer gameplay. The AIs (artificial intelligences) that gaming companies build into their programs tend not to be terribly good players. Games usually try to make up for this deficiency in two ways: Either they slant the rules in favor of the computer, or they give the computer substantially more units than the human player. The first method is simply annoying, and leaves the human feeling cheated. The latter method works better, but still isn't as satisfying as playing an evenly matched flesh-and-blood opponent.

In strategy games, multiplayer mode can also have a diplomatic element. With several different players in the field, an alliance (however temporary) can give the cooperating players a distinct advantage. This advantage is usually tempered by the fact that the best way to get out of an alliance is with a sudden, startling betrayal. Those who enjoy this sort of tempestuous gameplay will love strategic multiplayer gaming.

HEADPHONES are advisable for gamers—otherwise they may reveal the strength of their position to other players through audio feedback. Headphones also allow players to use the 3D audio cues many games provide.

PLACE HEADPHONE CABLES even more carefully than LAN cables. Nothing takes a player out of a game faster than having his head yanked back a good foot and a half.

EQUIPMENT: If necessary, you can rent equipment for a short period of time (one or two days) for $150 to $200 per computer.

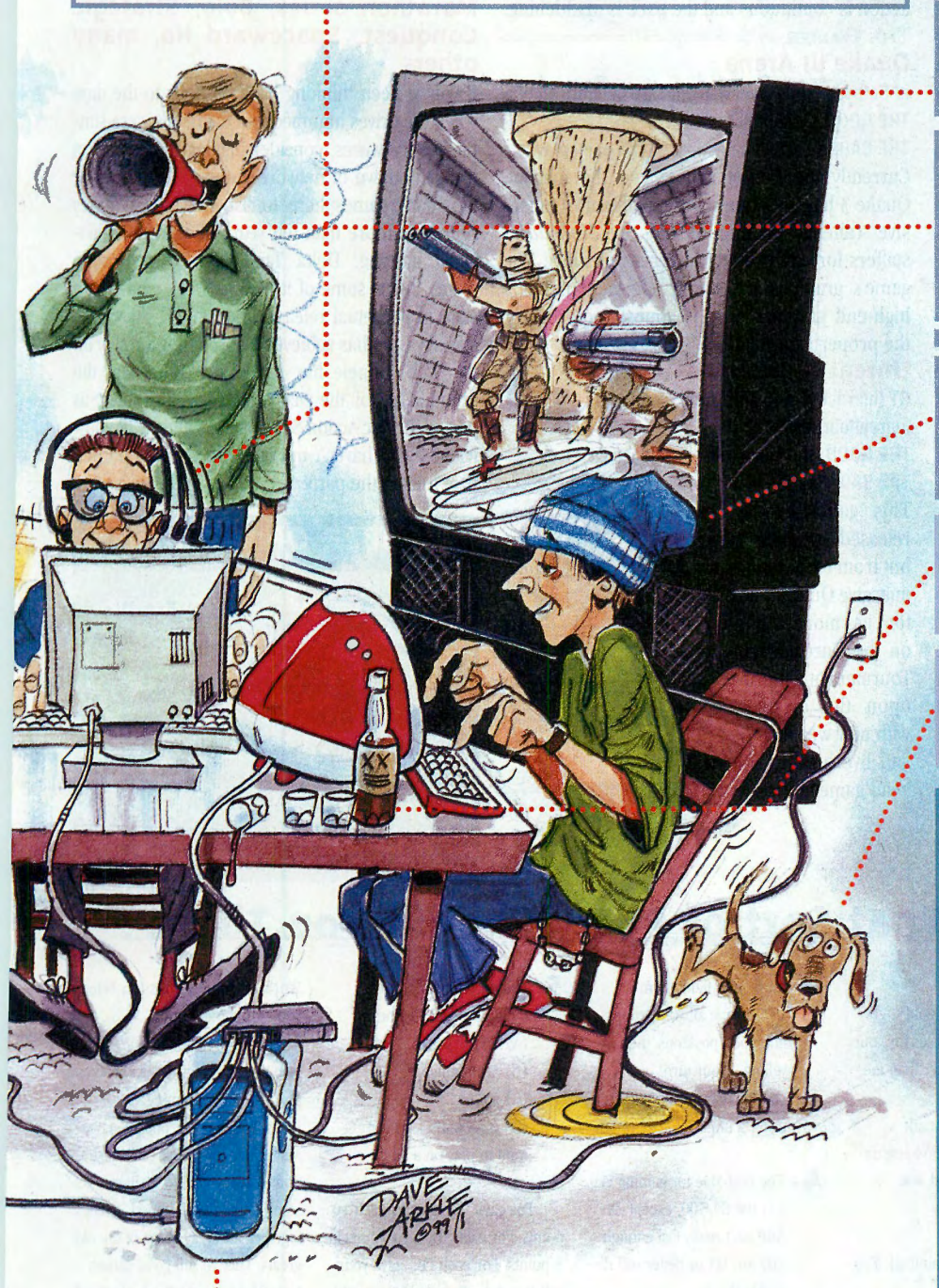
A BIG-SCREEN TV hooked up to a computer in spectator mode (if the game allows it) enables the announcer to do a sort of video sportscast of the action.

ANNOUNCER: You may be able to convince a particularly extroverted guest to give a play-by-play rundown of games in progress. Equip the announcer with a megaphone or a microphone-and-amp combo, depending upon the wildness of the party.

CLOTHING: While there is no fixed style of clothing at LAN parties, guests should wear clothes that do not unduly restrict their movement and that won't get caught in the cables.

HARD LIQUOR is acceptable for nongaming guests, but is likely to incapacitate gamers quickly. Hard liquor is advisable for announcers.

PETS ARE NEVER a good idea at parties, especially LAN parties. No one wants a dog saying hello to them when they're about to frag someone.



MOST LAN GAMES require that one machine function as the server. As this machine will be doing the bulk of the work the game requires, make sure the most powerful machine available hosts the game. Some games allow a dedicated server—one that doesn't participate in gameplay. This gives great performance, but is often impractical as it requires an additional machine that no player can use.

Taking Your Party to the Streets

With a copy of Sustainable Softwork's IPNetRouter (http://www.sustworks.com), you can link your LAN to the Internet, and play as a team against the world at large. IPNetRouter allows "IP masquerading," in which a single server with a network connection sends IP messages for all the machines on the LAN it connects to. This allows an entire LAN to "share" the server's network connection. Since the machines will be sharing the bandwidth, this isn't the best idea if your Internet connection goes through a slow modem. Mas-querading won't work with all games, either—only those that allow play through a firewall will work. Still, if your game supports it, you can take your party out as a team against the Internet universe.

The Games to Run on the Gear

It's a good idea to spell out well in advance what sort of party you're throwing. This will allow your friends time to get the games you've selected for the party. You will also avoid the otherwise interminable "Quake versus Myth" debate.

Theme: Strategy and Tactics

STRATEGY REQUIRED: Yes (hence the name)
PRINCIPAL VARIATIONS: Kill target, capture flags or balls, wipe out opposing army

If you're still in mourning for the days of hexagonal maps and cardboard counters, consider their modern equivalents: network games emphasizing strategy and tactics. These games tend to play out more slowly than the shooters, and can lead to great, classic war gaming.

The Games

Myth II

Bungie Software (http://mythii.bungie.com)
THE GOOD: Beautiful control of unit tactics
THE BAD: Strategy fans will miss resource management

The first Myth was a completely new sort of strategy game, marked by gorgeous 3D battlefields, a wide variety of well-thought-out multiplayer games, and an emphasis on unit tactics instead of resource management. Myth II continued the tradition with more units, more multiplayer games, and cleverer tactics. Myth was and is a winner.

Starcraft

Blizzard Software (http://www.blizzard.com/star/star.htm)
THE GOOD: Nice storyline, three very different but well-balanced sides
THE BAD: Very, very poor path finding

Blizzard started the real-time strategy craze with the original Warcraft. Starcraft, Blizzard's latest real-time strategy piece, is everything we've come to expect from Blizzard: a well-crafted game that does a nice job of balancing tactics and resource management. The main weakness is tortuously poor character path finding, which tends to leave units wandering off into enemy territory.

Theme: First-Person Shooter

STRATEGY REQUIRED: Kill! Kill!
PRINCIPAL VARIATION: Kill red! Kill red!

Got an itchy trigger finger? An urge to frag your friends? In a first-person shooter party, the action is continuous and the pace is maddening.

The Games

Quake III Arena

id Software (http://www.quake3arena.com)
THE GOOD: Beautiful, fast
THE BAD: A certain sameness to the gameplay

Currently the hottest shooter on the market, Quake 3 has undergone some of the most extensive (ahem) product testing by *MacAddict* staffers for any product in recent memory. The game's graphics are simply spectacular, but a high-end graphics card is almost required for the proper experience.

Unreal Tournament

GT Interactive Software (http://www.unrealtournament.net)
THE GOOD: Unknown, not yet released
THE BAD: See the good

This game hadn't been released by press time, but from early reports it may give Quake 3 a run for its money. Based on the Unreal engine, Tournament improves upon the original with new weapons and five head-to-head games.



Theme: Retro

STRATEGY REQUIRED: Wait patiently for everyone else to take their turns
PRINCIPAL VARIATIONS: 16 colors, black and white

The Games

Marathon series, Bolo, Strategic Conquest, Spaceward Ho, many others

If you've been thinking back wistfully to the days when the drives hummed and the beeps were simple square waves, consider digging up an artifact from the dawn of network gaming. There are far too many games here to list individually—they represent more than ten years of Macintosh network gaming. Delta Tao (http://www.deltatao.com) keeps some of its old network games in a state of perpetual release, and the old shareware standby Bolo has achieved a sort of immortality on the Web. Bungie has rereleased Marathon, the granddaddy of the Mac first-person shooter, as part of its Mac Action Sack. These games will allow friends who haven't upgraded in years to participate fully in the party.

NUMBER OF MACHINES

The size of your LAN determines the nature of your party.

UNCLEAR ON THE CONCEPT: 1 machine
FRIENDLY LITTLE GAME: 2 to 4 machines
GOOD LAN PARTY: 4 to 8 machines
WILD LAN PARTY: 9 to 16 machines
POTENTIALLY NIGHTMARISH PARTY: More than 16 machines

Personality Test—What Sort of Party Should You Throw?

If you don't know what sort of game party you should throw, here's a quick quiz to help you get a better idea:

1. The best game ever written for the Mac is:
(A) Quake III Arena
(B) Myth II
(C) Dark Castle
(D) For the Mac? No idea...has C&C Red Alert come out yet?

2. The goal in a really good game is to:
(A) Kill!
(B) Accumulate gold/stones/crystals/trees for your settlement quicker than the other guy.
(C) Drive a little tank around for no good reason
(D) Kill wretched Mac users!

3. You're playing paintball. You plan to win by:
(A) Annihilating everyone!
(B) Distracting the enemy with most of your troops while small detachments move in to flank them
(C) Moving all your troops into good positions, then yelling, "Your turn!"
(D) Massacring all Mac-using scum!

4. The best Mac for gaming is
(A) the G4/500, except 2X AGP isn't really fast enough
(B) Any G3 or better will do nicely, thanks
(C) IIsi—great blend of price and speed
(D) Mac? Gaming? You must be joking!

5. The ideal length of a multiplayer Mac game is:
(A) 10 minutes
(B) 40 minutes
(C) 5 days
(D) 0 seconds—who'd want to play on a Mac?

For each "A," give yourself 10 points. For each "B," give yourself 5 points. For each "C," give yourself 0 points. For each "D," subtract 20 points.

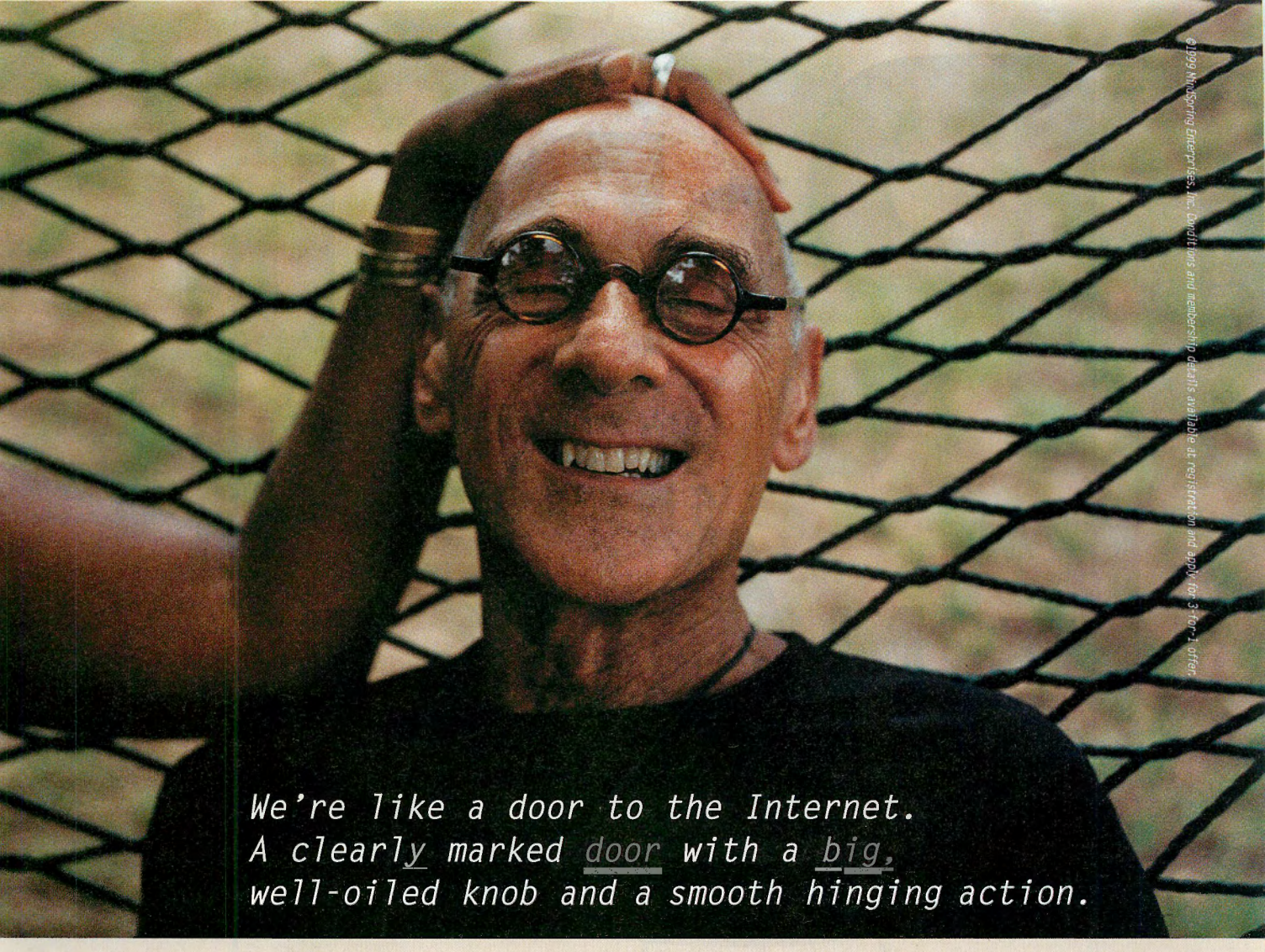
IF YOUR SCORE IS:

Over 25: You're definitely a candidate for a first-person shooter. Work off some aggression before you hurt someone.

5-24: You're the sort of person who makes Bungie smile. Load up Myth II and get gaming.

0-4: You haven't bought a new Mac since the Bush administration, have you? No matter—get some similarly inclined friends together and play some of the old greats. They're still good games.

Less than zero: We apologize if we shipped you the wrong magazine this month—you probably wanted a copy of *PC Gamer*, didn't you?



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Quicken

Rope In Your Finances

Use Quicken 2000 to start the new year right

BY MARIA LANGER

As another year draws to a close, many of us start thinking about New Year's resolutions. You know—those self-improvement promises you make to yourself each year, such as losing weight, joining a gym, or taking over a small South American country in a military coup. You keep your promises for a week or two (or until arms funding runs out) before returning to your old ways. The following year, the whole process repeats itself.

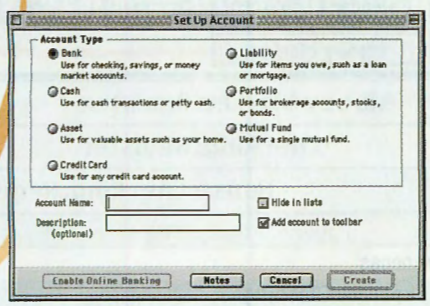
Well, there's one New Year's resolution that will benefit just about anyone who spends money and wonders where it goes: organizing your finances by setting up and using a personal finance software package. And with **Quicken 2000**, it's easy to keep that promise. Quicken includes all the tools you need to record transactions in your bank, credit card, asset, loan, and investment accounts. It then rewards you by enabling you to see exactly how you spend your money, what your net worth is, and how your investments are doing. Best of all, Quicken is easy to use and has a number of features that can automate much of the work it takes to enter all of those numbers.

On the following pages, we'll show you how to get your finances under control so you can keep at least one resolution. It may not make you go to Pilates class every morning, but maybe by this time next year you'll be called *generalissimo*. (For a review of Quicken 2000, see p78.)

Setting Up Accounts

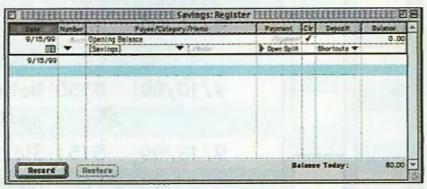
Before we get into the more difficult Quicken work, we're going to look at the basics: setting up accounts and categories. You record transactions in Quicken *accounts*. An account is a record of what you own (like a bank account, asset, or investment) or owe (like a credit card or loan). At a minimum, your Quicken data file must include one account, normally your checking account, which Quicken will prompt you to name when you first set up the program. You can create as many accounts as you like to record your financial information.

STEP 1 If necessary, display the Accounts list window by choosing Accounts from the List menu or by pressing Command-A. Click the New button in the Accounts list window to display a Set Up Account window.



WHO KNEW THERE WERE so many different types of basic bank accounts?

STEP 2 Select the radio button for the type of account you want to create. Then enter a name and, if desired, a description for the account. To add the account to the tool bar of the active tab, turn on the Add Account To Tool bar check box. If you turn on the Hide In Lists check box, the account won't appear in any list and you can't use it; this option is for old accounts you no longer access regularly. When you're finished, click Create. Click the account's name in the Accounts list window to bring up the account's Register window.



HONEY, DON'T WE HAVE more than this in our joint savings account?

STEP 3 Enter the account's opening balance in the appropriate column on the Opening Balance line. Then click the Record button. The account is now ready to use.

Setting Up Categories

In most cases, you'll assign a category to each transaction you enter. A category is a type of income (like your salary or a bonus) or expense (like rent, car insurance, or dining). For example, if you wanted to record a check you wrote at the supermarket to pay for groceries, you'd enter the transaction in your Checking register under the Groceries category. When you set up Quicken, it generates commonly used categories, but you can create as many unique categories as you like to meet your needs.

STEP 1 If necessary, display the Categories & Transfers list window by choosing Categories & Transfers from the List menu or by pressing Command-L. Then click the New button in the Categories & Transfers list window to display the Set Up Category window.



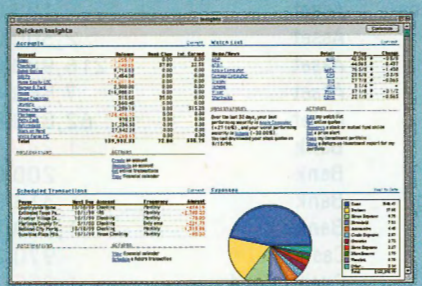
IF ONLY PAYING for child care was as easy as creating a category for it in Quicken.

STEP 2 Select the radio button for Income or Expense to specify the type of category. Then enter a name and, if desired, a description for the category. If you are including the category's transactions on your tax return, turn on the Tax-Related check box; Quicken will offer to associate a tax return line item with the category when you create the account. When you're finished, click Create. The account's name appears in the Categories & Transfers list window, and you can use it when recording transactions.

What's New in Quicken 2000

Intuit added a number of features to the latest version of Quicken to bring it into the next millennium. Here's a list of the most obvious (and useful) ones.

Quicken Insights Window



YEAH, IT LOOKS LIKE a lot of information, but it's vital to your financial well-being.

This great new feature displays "snapshots" of your financial information, enabling you to see all the most important aspects of your finances in one place. You can specify which snapshots should appear in the window and arrange their order. You can even customize the arrangement of information *within* some of the snapshots.

Easy Access to Internet Features

You can easily access features available on Quicken.com through the Online menu. This makes it simple to find and use many of the site's interactive features for gathering information and making decisions.

Historical Quotes

Quicken now enables you to download up to five years' worth of security prices for the stocks and mutual funds you track. This information can come in handy when you're evaluating long-term investment performance.

Streamlined Interface

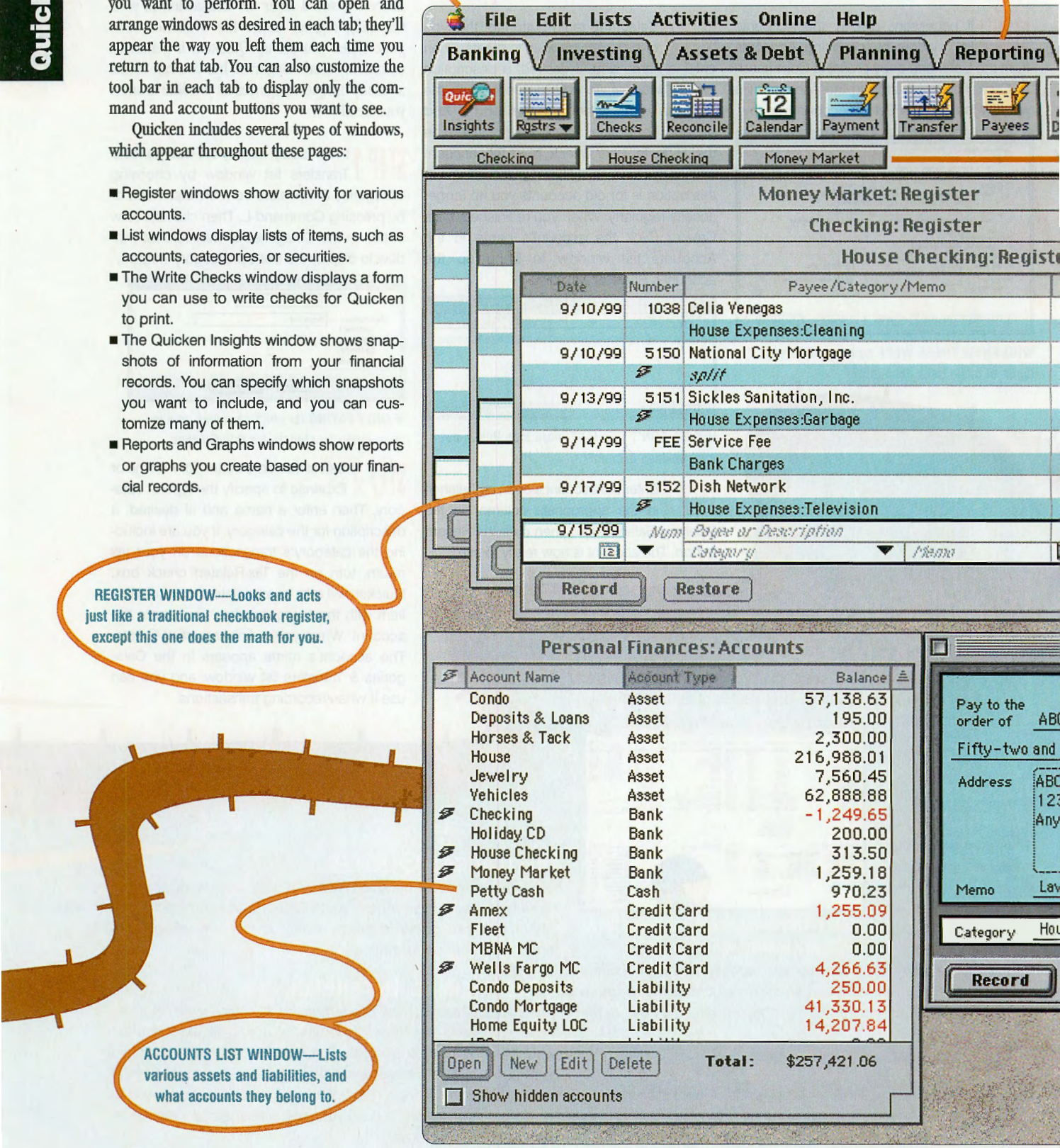
The Quicken interface now has a more intuitive look and feel, making it a bit easier and more convenient to use. Tabs along the top have replaced buttons along the left side of the window. Account buttons in the tool bar have replaced smaller, less obvious buttons at the bottom of the window. Best of all, each tab is completely customizable, enabling you to build your own personalized interface for using Quicken's features.

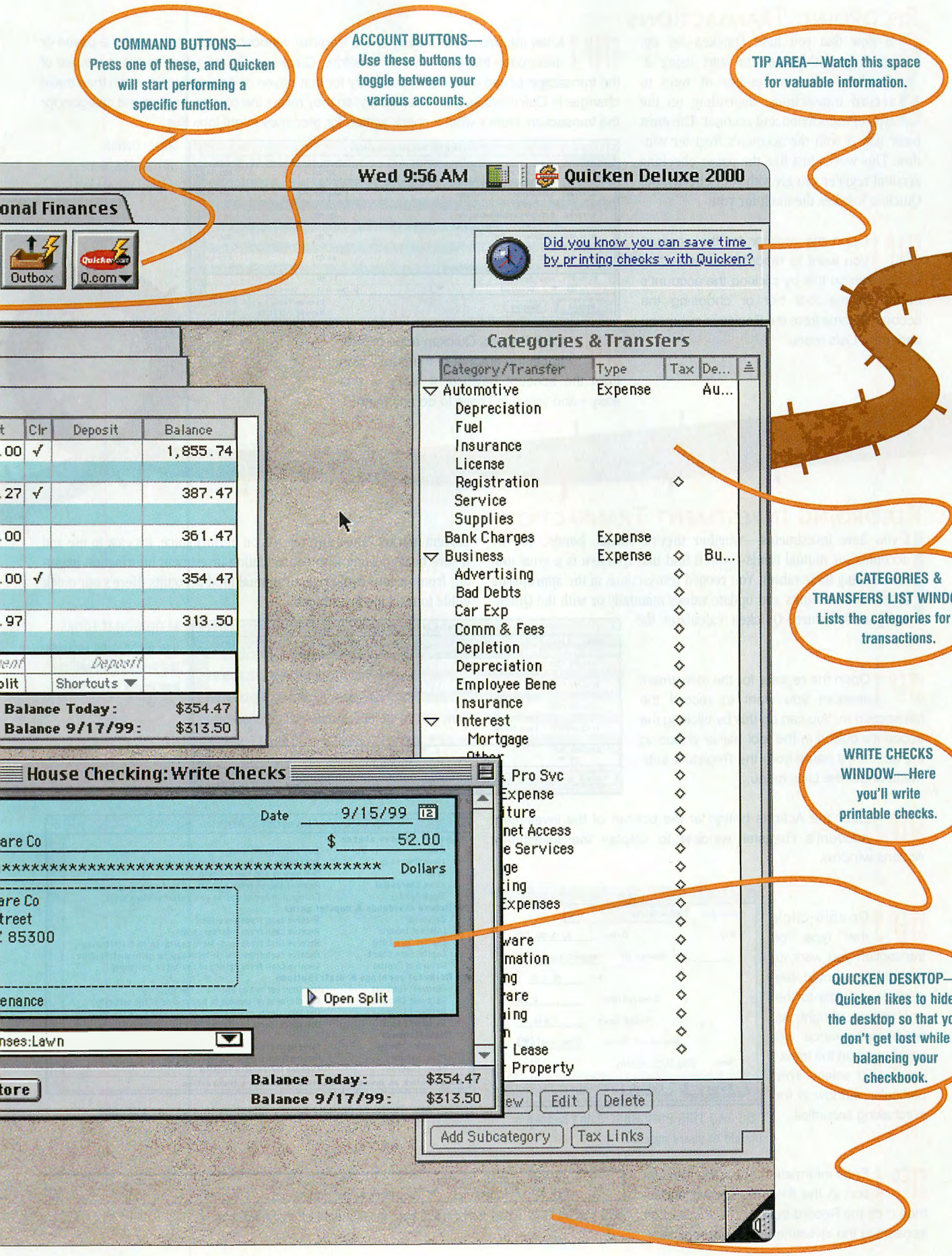
The Quicken Interface

Quicken's interface opens with a desktop that covers all other windows on your screen. Tabs along the top of the desktop enable you to switch from one group of windows to another based on the tasks you want to perform. You can open and arrange windows as desired in each tab; they'll appear the way you left them each time you return to that tab. You can also customize the tool bar in each tab to display only the command and account buttons you want to see.

Quicken includes several types of windows, which appear throughout these pages:

- Register windows show activity for various accounts.
- List windows display lists of items, such as accounts, categories, or securities.
- The Write Checks window displays a form you can use to write checks for Quicken to print.
- The Quicken Insights window shows snapshots of information from your financial records. You can specify which snapshots you want to include, and you can customize many of them.
- Reports and Graphs windows show reports or graphs you create based on your financial records.



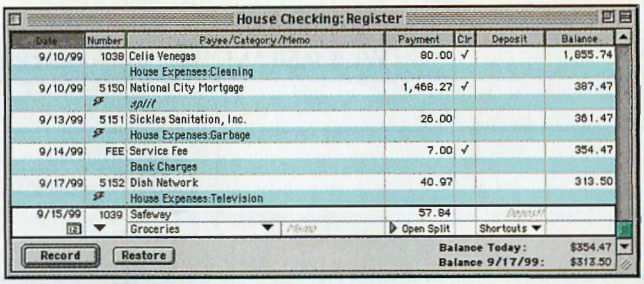

COMMAND BUTTONS—Press one of these, and Quicken will start performing a specific function.
ACCOUNT BUTTONS—Use these buttons to toggle between your various accounts.
TIP AREA—Watch this space for valuable information.
Wed 9:56 AM
Quicken Deluxe 2000
onal Finances
Outbox
Q.com
Did you know you can save time by printing checks with Quicken?
Clr
Deposit
Balance
1,855.74
387.47
361.47
354.47
313.50
Shortcuts
Balance Today: $354.47
Balance 9/17/99: $313.50
Categories & Transfers
Category/Transfer
Type
Tax
Automotive
Expense
Depreciation
Fuel
Insurance
License
Registration
Service
Supplies
Bank Charges
Expense
Business
Expense
Advertising
Bad Debts
Car Exp
Comm & Fees
Depletion
Depreciation
Employee Bene
Insurance
Interest
Mortgage
Lease
Property
Edit
Delete
Add Subcategory
Tax Links
CATEGORIES & TRANSFERS LIST WINDOW—Lists the categories for your transactions.
House Checking: Write Checks
Date 9/15/99
52.00
Dollars
Open Split
Balance Today: $354.47
Balance 9/17/99: $313.50
WRITE CHECKS WINDOW—Here you'll write printable checks.
QUICKEN DESKTOP—Quicken likes to hide the desktop so that you don't get lost while balancing your checkbook.

Recording Transactions

So now that you have Quicken set up, you'll probably want to start using it. Quicken offers a number of ways to record transactions, depending on the type of transaction and account. The most basic way is with the account's Register window. This works just like the paper checking account register you get with your checks, but Quicken handles the math for you.

STEP 1 Open the register for the account you want to record the transaction in. You can do this by clicking the account's button in the tool bar or choosing the account's name from the Registers submenu under the Lists menu.

STEP 2 Enter information into each of the Register window's fields. If you enter a payee or description that you have used before, Quicken's QuickFill feature fills in the rest of the transaction based on the previous entry for that payee or description. You can then make changes to Quicken's entries, if necessary, so they reflect the correct amount and category for the transaction. Here's what a check written for groceries might look like.

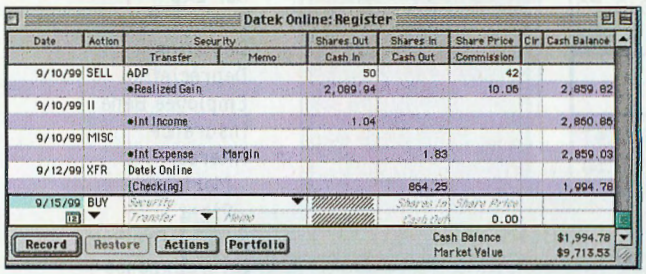


MAN, THOSE SAUSAGES were mighty expensive!

STEP 3 Click Record. Quicken adds or subtracts the amount of the transaction from the account balance. It really is that easy—and you don't have to do any math!

Recording Investment Transactions

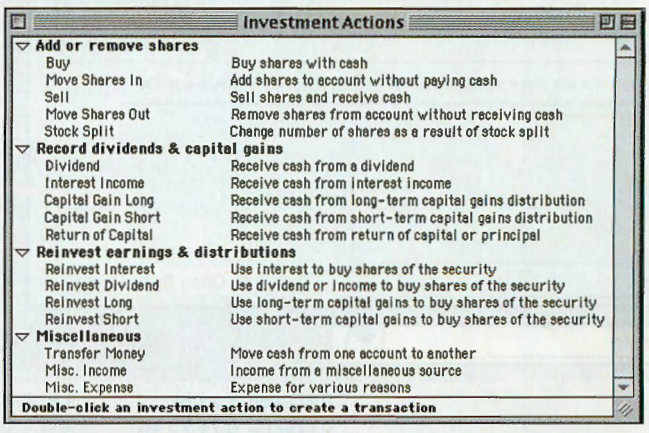
If you have investments—whether they're stocks, bonds, 401(k) accounts, or mutual funds—you'll find that Quicken is a great tool for tracking their values. You record transactions in the appropriate investment accounts and update values manually or with the Quicken Quotes feature. Quicken calculates the current market values and reports on performance. It's easy to use and it sure beats dealing with consolidating investment information manually from various brokerage or mutual fund accounts. Here's our quick guide to tracking investments.



ALTHOUGH IT LOOKS like a checking register, the investment register has much more detail.

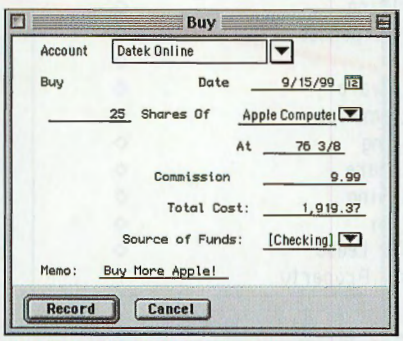
STEP 1 Open the register for the investment account you want to record the transaction in. You can do this by clicking the account's button in the tool bar or choosing the account's name from the Registers submenu under the Lists menu.

STEP 2 Click the Actions button at the bottom of the investment account's Register window to display the Investment Actions window.



THERE ARE TONS of options to pay attention to—so pay attention.

STEP 3 Double-click the type of transaction you want to record. You should see a window similar to the one shown at right; its actual appearance will vary based on the transaction you select. This particular window is for purchasing securities.



TOO BAD THIS PURCHASE didn't happen a couple of years ago.

STEP 4 Enter information about the transaction in the fields as shown above, then click the Record button. The transaction appears in the investment account register.



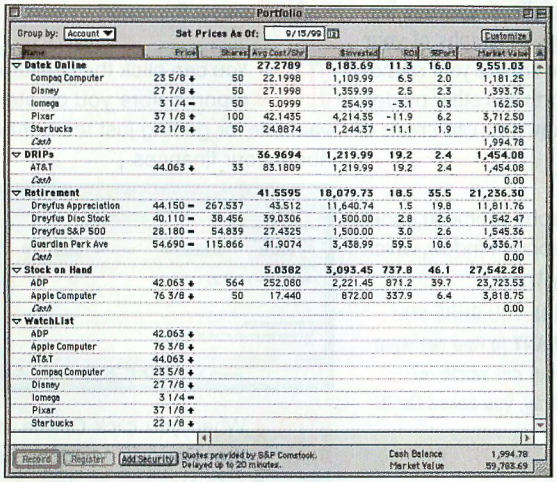
AND THERE IT IS—you've recorded your investment in the mother ship.

Tracking Your Portfolio's Value

Quicken displays all investment account balances in its Portfolio window. You can view this window by choosing Investment Portfolio from the Activities menu or by pressing Command-H.

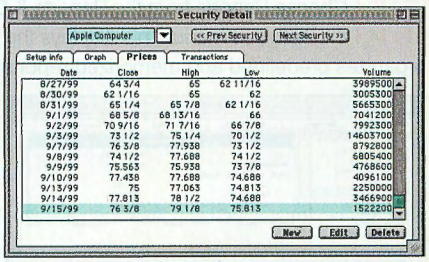
You can customize this window by clicking—you guessed it—the Customize button. The WatchList items at the bottom of the window are the securities that you want to appear in the WatchList snapshot of the Quicken Insights window. They can be securities you own or ones you're just keeping a close eye on.

Of course, the market value information for your portfolio won't be up to date unless you enter current security price information. You can do this in two ways: the quick and easy way, or the time-consuming and difficult way. The quick and easy way is to use Quicken Quotes to download prices. Choose Quicken Quotes from the Online menu or click the Quotes button in the Investing tab. You need Internet access to use this feature. If you don't have Internet access, you'll have to enter security prices the time-consuming way: manually. Here's how.



YEP, THE BULL MARKET has been very, very good. Except for that pesky Compaq stock.

STEP 1 You can view and edit information for a specific security by opening the Security Detail window. Double-click the name of a security in the Portfolio window. The Security Detail window, which has four tabs of information, appears. Below you can see what its Prices tab looks like.



MAN, SEPTEMBER 3 WAS a heavy trading day for Apple.

STEP 2 To add or edit price information, make sure you're viewing the Prices tab. Then either select the price you want to edit and click the Edit button, or just click the New button. Edit or enter information in the dialog box that appears and click Change or Record. Here's a look at the New Price dialog box; the Edit Price dialog box looks very similar.

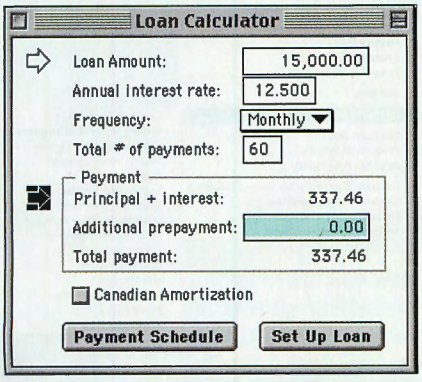


IT MAY LOOK SMALL, but this little dialog box has the power to process all kinds of stock information.

Using Financial Calculators

Sometimes you need to perform complex calculations to plan for purchases or other major events. Quicken includes a number of Planning Calculators that enable you to do just that. Here's an example: the Loan Calculator.

STEP 1 Choose Loan from the Planning Calculators submenu under the Activities menu to make the Loan Calculator window appear.

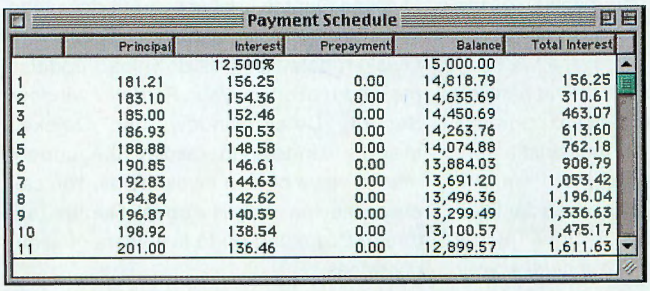


LOOKING TO FINANCE that junta with a quick loan? Just use the calculator to see if you can afford it.

STEP 2 Click the arrow beside the item you want to calculate. In the previous illustration, we're calculating the monthly payment (principal plus interest).

STEP 3 Enter values in each of the edit boxes. Be sure to select the correct frequency from the pop-up menu. As you move from field to field, Quicken calculates the desired value.

STEP 4 You can click the Payment Schedule button to view an amortization table for the loan. This will tell you how much interest you pay with each payment and how quickly you'll pay the loan off.



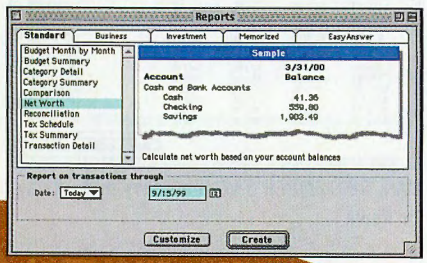
STEP 5 If you want to add the loan to your Quicken data file, click the Set Up Loan button. In the dialog box that appears, enter your loan information. Quicken will track the loan's principal and interest payments for you, so you always know exactly how much you've paid and how much you still owe on the loan.

AMORTIZATION IS JUST A BIG FANCY word for a payment schedule—how fast the loan will go away and how much interest you'll pay on it.

Creating Reports and Graphs

If you're wondering why you should bother entering transactions into Quicken, you probably don't know about its excellent reporting feature. You can use this feature to create reports or graphs of your financial information. Not only will this help you analyze your spending habits, but it makes it easy to prepare net worth and other reports that you can use for loan applications. Here's how you can create a report; creating a graph is very similar.

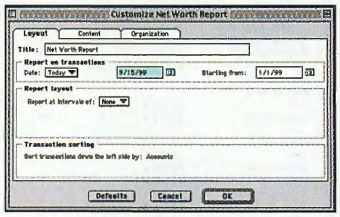
STEP 1 Choose Reports from the Reports & Graphs submenu under the Activities menu. This displays the Reports window, which organizes predefined and memorized reports by type.



ARE YOU SURE YOU WANT to find out what your net worth is? Okay, you asked for it.

STEP 2 Click the tab for the type of report you want to create. Then select the report by name.

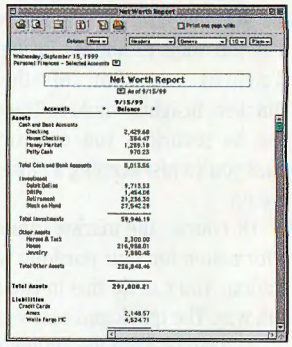
STEP 3 You can click the Customize button to set options for the report before you create it. This feature is tremendously valuable for getting just the right amount and type of information about your finances.



HERE'S WHERE YOU can make all of that information pleasing to the eye. Otherwise, you may get too much of a good thing.

STEP 4 When you click Create in the Reports window or OK in the Customize window, the report appears. You can generate several types of reports; we chose to show you a Net Worth report.

STEP 5 You can use buttons and other options in the Report window to customize the report if desired.



WITH THIS VIEW on the bottom line, you'll know exactly where you stand—fiscally speaking, that is.

Going Online

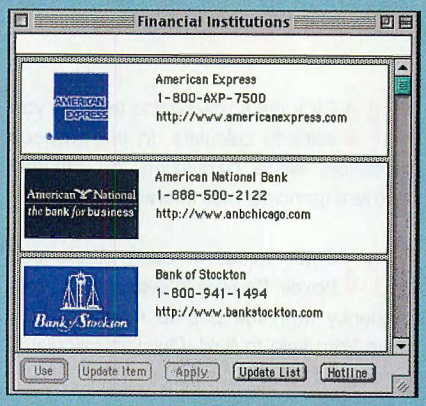
If you have access to the Internet, you can take advantage of some of the best time-saving and information-gathering features of Quicken, including online banking, Quicken Quotes, and Quicken.com features.

Online Banking

Online banking consists of two features you can use together or separately, depending on the type of account:

- Online account access enables you to download transactions from your bank directly into Quicken. The information includes the account, date, transaction number (if applicable), and amount. For ATM, debit card, or credit card transactions, it also includes the payee or description. This makes it a breeze to enter transactions and virtually impossible to omit them from an account in error. It also provides exact account balance information.
- Online bill payment enables you to pay your bills by sending payment instructions to your bank. The bank makes a wire transfer or sends a check to the payee on the date you specify—no more writing checks, stuffing envelopes, licking stamps, or mailing bills. Quicken and your bank do all this stuff for you.

To take advantage of the online banking features, your bank or credit card company must be a Quicken partner institution. Choose Financial Institutions from the Online menu to display the Financial Institutions window shown at right. Scroll through the list to see if it includes your bank or credit card company. Then call your institution's number to get signed up for online banking.



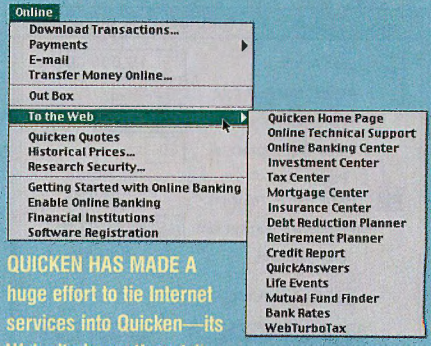
MANY BANKS THESE DAYS offer ways to get your financial data from the Net into Quicken. Odds are that the Bank of Dave doesn't.

Quicken Quotes

Quicken Quotes enables you to download security price information directly into your Quicken data file. This download updates the information in your Portfolio window, Security Detail window, and Quicken Insights window, to display the current market value of your investments. You can even use the new Historical Quotes feature to download up to five years of security prices.

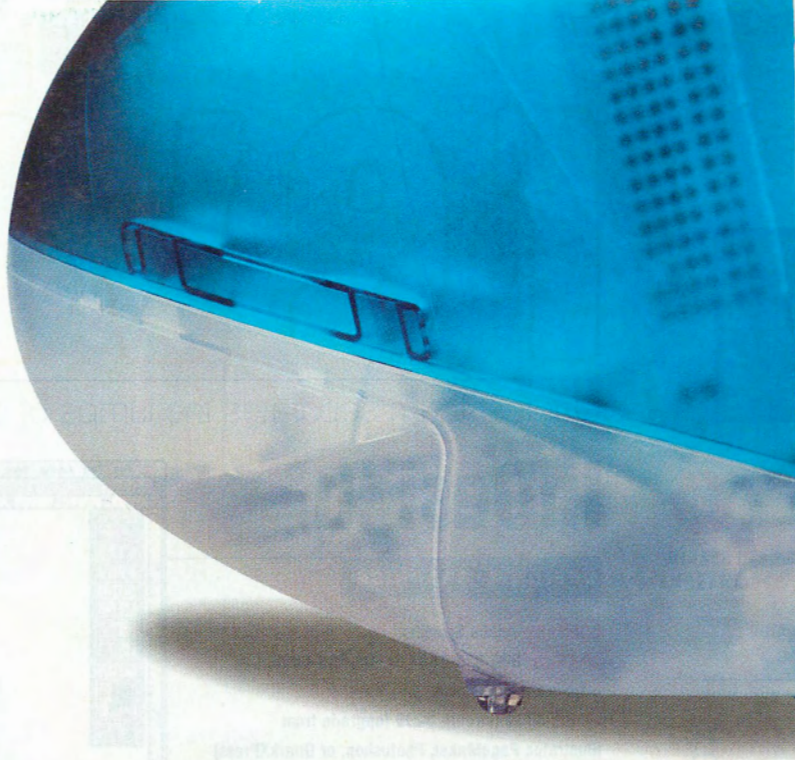
Quicken.com

Quicken.com is Intuit's companion Web site for Quicken users, although you don't have to be a Quicken user to take advantage of its features. It's the mother lode of personal and small-business financial information, with articles and interactive features designed to make the most of your money. You can connect to Quicken.com's various departments from within Quicken by choosing options from the To The Web submenu under the Online menu.



QUICKEN HAS MADE A huge effort to tie Internet services into Quicken—its Web site is worth a visit.

Maria Langer has been writing Mac OS how-to books and using Quicken since 1992. She is the author of *Quicken 2000 for the Mac: The Official Guide*, a Quicken Press book published by Osborne/McGraw-Hill.



Laser Power for Generation i

Say hello to our iMac™ & G3 compatible Laser Printers and Multi-Function Centers.

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Laser Multi-Function from $499

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reviews

Our test team separates the lumps of coal from the must-have presents.

FREAKIN' AWESOME
The most valuable products, the coolest gizmos.

SPIFFY
A solid offering. Overall a good investment.

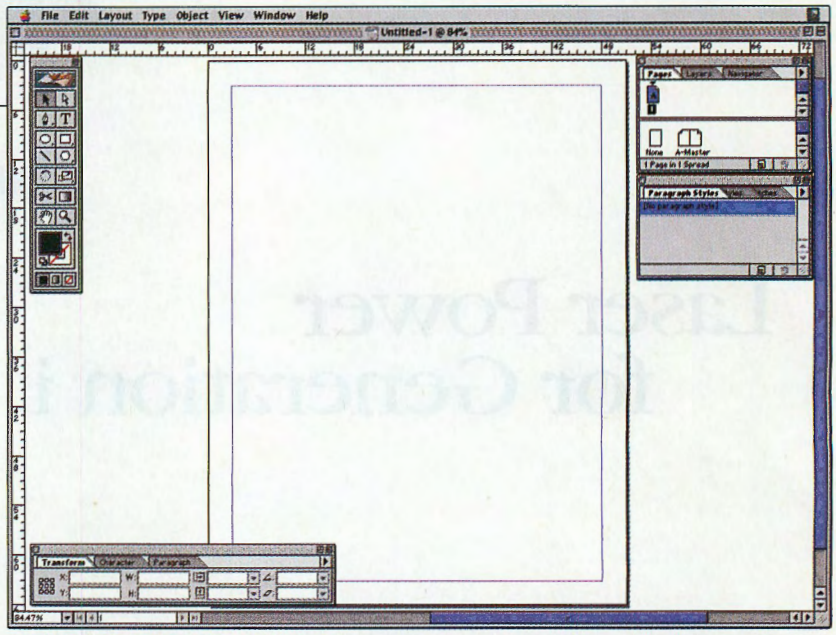
YEAH, WHATEVER
A few good features, but generally a waste of time and money.

BLECH!
We hate to even blotch our pages with the thing.

InDesign

DESIGN & GRAPHICS

COMPANY: Adobe Systems
CONTACT: 800-833-6687 or 408-536-6000, http://www.adobe.com
PRICE: $739 (street), $299 (upgrade from Illustrator, PageMaker, Photoshop, or QuarkXPress)
REQUIREMENTS: PowerPC 604 or faster (G3 recommended), Mac OS 8.5 or later, 96MB of RAM (128MB recommended), 130MB of free hard disk space, CD-ROM drive, 832 by 624 monitor (24-bit, high-resolution display recommended), printer with PostScript Level 2 or later



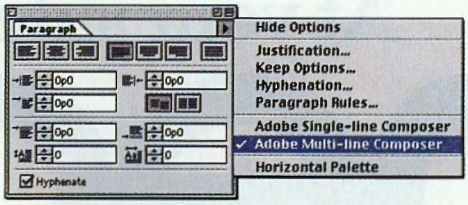
INDESIGN USES THE SAME INTERFACE and conventions as other Adobe applications.

Imagine you've rented a house for several years. You feel the landlord takes too long to fix things and sometimes charges too much. But the house has always been called the finest of its kind. In fact, all the professionals you know live in houses this landlord owns. Now imagine that a new landlord builds a house down the block. From the outside, this new house looks incredible—it's got new features you've always wanted, and the rent will be less than what you're currently paying. The landlord promises to fix things quickly and add new appliances often. Should you pack up and move, or should you just hope that your current landlord will take the clue and change his ways? That's essentially the dilemma facing QuarkXPress users as Adobe rolls out InDesign (also known by the code name K-2 or, informally, the Quark Killer), its new page layout and design application for desktop publishing professionals.

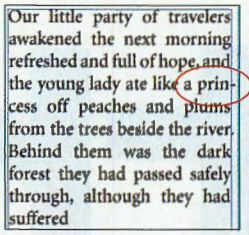
If you are familiar with Illustrator, PageMaker, or Photoshop, you will feel very much at home with InDesign. The toolbox, palettes, and icons have the same look and feel as those of other Adobe applications. However, recognizing that many fingers are trained to follow QuarkXPress shortcuts, InDesign gives you the option to change keyboard shortcuts to

Understanding Multiline Composition

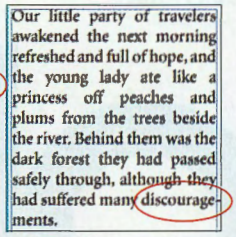
The Adobe Multi-Line Composer is a revolutionary feature that allows InDesign to look at how a certain number of consecutive lines have broken and rerag the text accordingly. This greatly improves the overall look of the text.



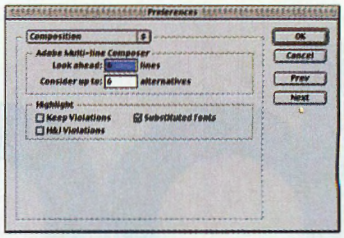
1 You apply Adobe Multi-Line Composer through the Paragraph palette's submenu. Adobe Single-Line Composer uses the same engine as ordinary page layout programs.



2 In this example, as we compose the text, the word "princess" is hyphenated on the fourth line of copy.



3 When we add "many discouragements" to the tenth line, InDesign recomposes the fourth line, closing up "princess."



4 The Composition Preferences window controls how many lines and alternatives InDesign considers as it reruns the text.

their QuarkXPress equivalents. Instead of pressing Command-D to retrieve a text or a picture, you can switch to a set of shortcuts that uses Command-E (see "Making XPress Users Feel at Home," p64) for the same function. You can also create your own sets using almost any keystrokes you want, though you can't remap hard-coded shortcuts, such as those for the magnifying glass tool.

Without question, InDesign has some of the most revolutionary typographic features in all of desktop publishing. The most exciting is multiline composition. Unlike ordinary single-line composition, which can only set text one line at a time, InDesign's multiline feature examines a certain number of lines as a group and changes the line breaks accordingly. This dramatically reduces the unwanted rivers of word spacing—the bane of desktop publishing documents (see "Understanding Multiline Composition," p62).

Another new typographic feature is optical margin alignment, which allows punctuation to hang outside the margin for justified text. The optical kerning looks at the shapes of letters and closes up the space between them. This allows you to kern between different typefaces. Anyone who appreciates fine typography will definitely want to consider using InDesign.

InDesign offers a wide range of export options. You can maintain even the most complicated layouts using Cascading Style Sheets. The Web export can create automatic navigation elements for pages. Anyone converting InDesign documents into Web pages will also appreciate the Adjust Layout command. This feature, originally found in PageMaker 5, allows you to change the orientation of a document and rearrange the elements on the page. This makes it easy to change a newsletter from a portrait (print) orientation to a landscape (Web) orientation. InDesign can even export Acrobat PDF files, but it doesn't convert text links automatically into Acrobat's article threads.

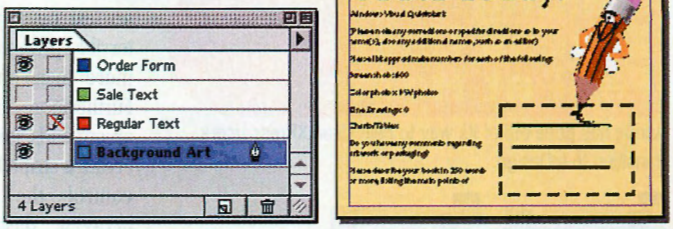
Since most designers have an extensive library of documents created in other desktop publishing packages, Adobe has provided a way to convert QuarkXPress 3.3 through 4 or PageMaker 6.5 documents into InDesign files. This feature is excellent for converting style sheets and master pages. However, text often flows irregularly, so plan to spend considerable time cleaning up converted documents.

For many years, one of the great strengths of PageMaker was its ability to coordinate documents in a book and create an index and table of contents. So it is strange that InDesign relies on a third-party plug-in (the $195 Sonar Bookends from Virginia Systems) for indexing, and cannot coordinate styles, page numbers, and colors across documents. Book publishers may not want to move over to InDesign immediately, given these limitations.

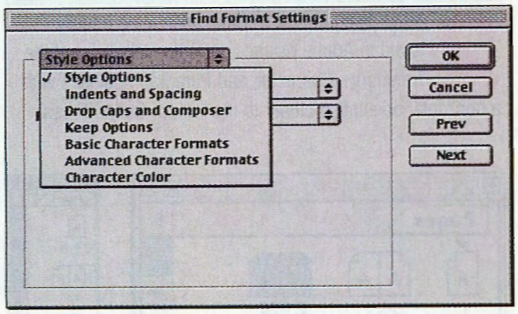
Some InDesign features, however, break new ground. For example, it can base master pages (individual page layouts that contain elements common to every page in the document, such as page numbers or title chapters) upon other master pages, or create them directly from document pages. And you can put headers and footers on individual master pages while controlling the rest of the layout on a "master" master page. Another great new feature is the Find/Change command, which searches and alters both character and paragraph attributes such as drop caps, character color, paragraph spacing, indents—even widow and orphan controls.

One of the arguments for switching to InDesign is that since it comes from Adobe, there is a synergy between InDesign, Illustrator, and Photoshop. For example, InDesign can import native Photoshop files, flattening and saving them as TIFF files. It can also read clipping paths in Photoshop files and convert them into InDesign frames. You can drag and drop Illustrator artwork directly into InDesign. And InDesign can read swatches from Illustrator files. However, there are times when the synergy breaks down between the applications. For instance, there is no simple route back from InDesign into either Photoshop or Illustrator, so you can't easily undo changes to clipping paths or artwork and transfer them back to other Adobe programs. Also, text from Illustrator does not stay editable after you move it into InDesign. Likewise, while InDesign can apply gradients to the fill or stroke of text as Illustrator can, you lose Illustrator gradients when you bring artwork into InDesign.

As beautiful as the InDesign house is on the outside, it's missing some very basic



ALL THE POWER OF ILLUSTRATOR'S LAYER FEATURES is available in the InDesign Layers palette.



YOU CAN SEARCH FOR AND CHANGE AN INCREDIBLE VARIETY of features, including paragraph attributes, using the new Find/Change controls.

Total Modular Design

InDesign takes the concept of plug-ins to its highest level. The application itself takes up only 1.7MB of disk space; the bulk of the program comes from plug-ins. The toolbox, palettes, Find/Change, tabs, indents, and other parts of the application are all plug-ins. Theoretically, this means Adobe can easily make changes to different parts of the program by simply updating the individual plug-ins rather than rewriting major parts of the application code. It also means third-party developers can create modifications to almost *any* part of the program. So a company can commission its own special plug-ins, in addition to utilizing third-party plug-ins for tables, indexing, and special frame effects. For instance, if you don't like the Character palette's look, you can write your own plug-in (or hire someone to do so).

in review

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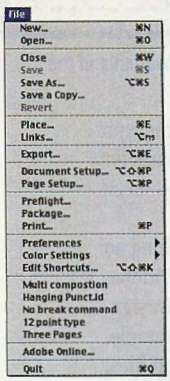
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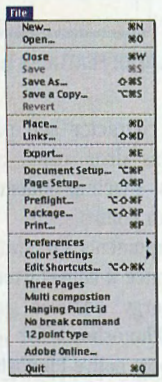
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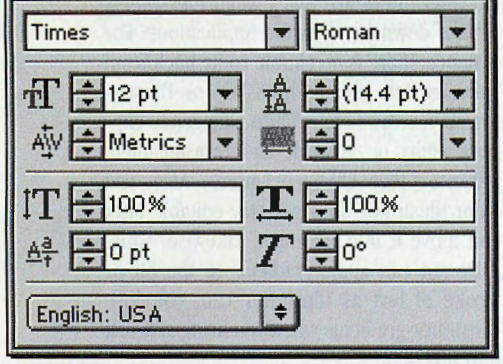
Making XPress Users Feel at Home

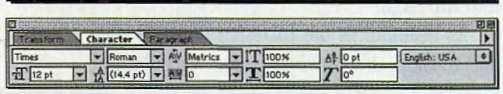
Adobe has gone out of its way to help QuarkXPress users transition to InDesign.



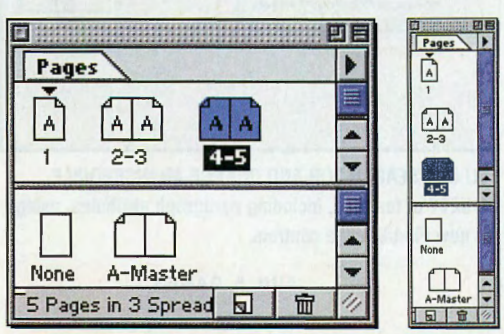


1 You can change keyboard shortcuts in the Adobe defaults to QuarkXPress 4.0 settings.



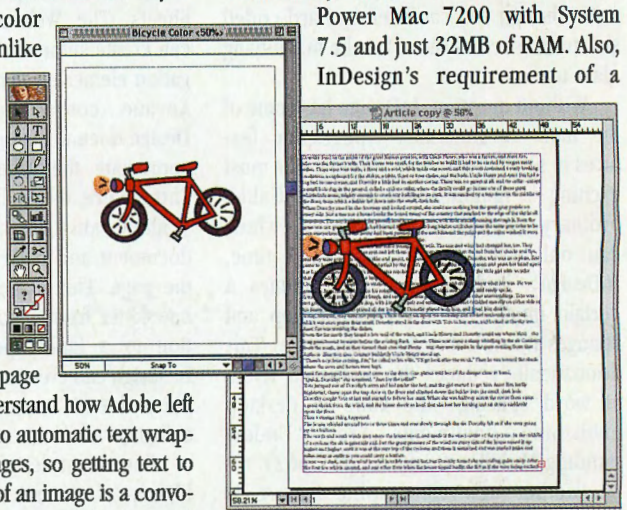


2 As an option to the vertical orientation usually found in Adobe palettes, InDesign lets you set the Transform, Character, and Paragraph palettes with a horizontal orientation closer to the look of QuarkXPress.



3 InDesign's Pages palette is similar to the QuarkXPress Document Layout palette. Just a quick drag changes its size and shape, making the palette look more familiar to QuarkXPress users.

features. Although there is a pen tool, there's no text on a path; the Bézier controls are terribly primitive; and you can't even select more than one anchor point at a time. Furthermore, InDesign has a nice variety of arrowheads for rules, but it has no way to create a striped or scotch rule and no way to control the gap color between dashes. Unlike QuarkXPress with its powerful Space/Align, InDesign has only a very simple alignment feature, so there is no way to select several objects and quickly apply a specific amount of space between them. This is such a basic feature of page layout, it's hard to understand how Adobe left it out. Finally, there is no automatic text wrapping for imported images, so getting text to run around the shape of an image is a convoluted process. First you create a clipping path from the preview of the image, then you apply a runaround to that path. Worse, if you make any changes to the original image, you'll have to re-create the clipping path.



YOU CAN DRAG ARTWORK from Illustrator into InDesign, but beware—there is no route back from InDesign into Illustrator.

You may want to avoid using some InDesign features until Adobe fixes them. For instance, if you scale text up or down, the physical size of the text changes, but the point size in the character palette remains the same. This means three different text frames can print slightly different sizes of what appears to be 12-point text. Adobe admits this feature is not working as intended and has promised a fix. Another apparent problem involves using the color palette to apply colors directly to InDesign objects or text. These unnamed colors do not appear in Swatches or in the Print dialog box. While this sort of freedom in applying colors is acceptable in an Illustrator program, it can cause production problems in a page layout program.

Finally, InDesign has some onerous system and hardware requirements (Adobe recommends Mac OS 8.5 and 128MB of RAM!), especially since you can comfortably run QuarkXPress 4 on a lowly Power Mac 7200 with System 7.5 and just 32MB of RAM. Also, InDesign's requirement of a printer with PostScript Level 2 or later is a problem for anyone who has an ink-jet printer. Adobe recommends such users convert their documents into PDF files and print them with Acrobat.

Very few software packages are perfect in their first version, and InDesign is no exception. Unfortunately for those who expected a monumental leap past the current versions of PageMaker and QuarkXPress, InDesign doesn't qualify, though it holds great promise. Anyone who wants to improve the look of a document's typography will want to use InDesign right away. However, others—especially those working with long documents—may not feel comfortable moving to this premiere version. The house doesn't feel finished. But Adobe promises that InDesign's modular structure will make future updates and upgrades easy to create. It shouldn't be long before InDesign is ready for new tenants.—*Sandee Cohen*

"We must go and search for water," she said as she got out of the bed.

"Why do you want water?" he asked with a slight frown.

"To wash my face clean after the dust of the road, and to drink, so the dry bread will not stick in my throat."

They left the cottage and walked through the trees. After a while, they found a little spring of clear water, where she drank and bathed and ate her breakfast.

"We must go and search for water," she said as she got out of the bed.

"Why do you want water?" he asked with a slight frown.

"To wash my face clean after the dust of the road, and to drink, so the dry bread will not stick in my throat."

They left the cottage and walked through the trees. After a while, they found a little spring of clear water, where she drank and bathed and ate her breakfast.

INDESIGN ALLOWS YOU TO SET PUNCTUATION so that it hangs outside the margins of text. This gives text—especially if it's justified—a much more elegant look.

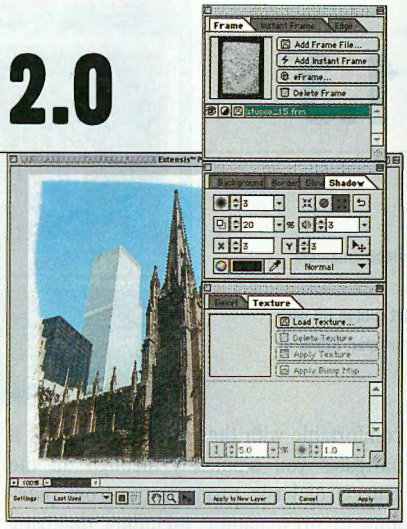


GOOD NEWS: Customizable keyboard shortcuts. Revolutionary typography controls. Lots of export options. Sophisticated Web export. Powerful master page and Find/Change features. Relatively inexpensive. **BAD NEWS:** Imperfect conversion of other DTP app documents. Integration with other Adobe programs isn't seamless. Missing a few basic tools. Some features don't work as intended. Onerous system and hardware requirements.

PhotoFrame 2.0

DESIGN & GRAPHICS

COMPANY: Extensis
CONTACT: 800-796-9798 or 503-274-2020, http://www.extensis.com
PRICE: $200 (street); $79.95 upgrade from PhotoFrame 1.x
REQUIREMENTS: PowerPC, System 7.5.5 or later, Photoshop or ImageReady



PHOTOFRAME'S PREVIEW WINDOW shows the effects of your changes as you make them.

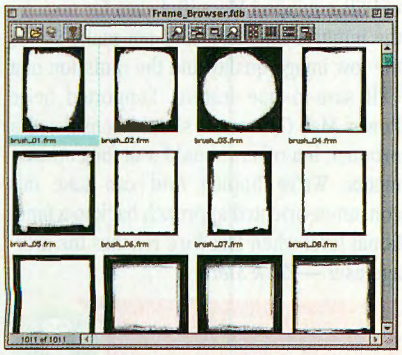
Let's face it, straight image edges are boring. Extensis PhotoFrame 2.0 can transform ho-hum image edges into interesting works of art, turning even the dullest image into something that commands attention. Best of all, you needn't be a graphic designer to use PhotoFrame.

PhotoFrame is a plug-in that works with Adobe's Photoshop 4 or later, as well as ImageReady 2. You can manipulate an image in either of these programs, then open the PhotoFrame plug-in to display the image in a preview window. Select one of the more than 1,000 frames—predefined edge and texture effects—on the PhotoFrame CD, or use the new Instant Frame option to create your own frame based on a standard shape. Then use Photoshop-like palettes to add other special effects such as backgrounds, borders, and edges. You can combine any number of frames and effects to get just the look you want. You then apply the changes either to the image or to a new layer within the image file.

PhotoFrame 2.0 adds a number of new features to the original PhotoFrame package, improving some existing features and tripling the number of frames. For example, version 2.0 adds four new effects—bevels, glows, shadows, and textures—and the ability to apply multiple frames and edge effects to an image. You can get additional frames on the eFrames companion Web site (http://www.dgusa.com/eframes) for $9.95 each or $14.95 for a monthly group of 100 (30 days of free access included). With so many frames included, however, it probably isn't worth the extra money to purchase more frames. PhotoFrame can also import frames from Auto F/X Photo/Graphics Edges (http://www.autofx.com), a competing product with a street price of $149.



FIND A PHOTOFRAME 2.0 trial on The Disc.



THE BROWSER DISPLAYS YOUR FRAME CHOICES. If you prefer, you can print an Acrobat-format Frame Gallery file to create your own guide.

PhotoFrame's intuitive interface is easy to work with, although you may need a peek at the Quick Start Guide to get on the right track. The program's ability to instantly update the preview image makes it easy to see just what the effect of your changes will be. The Visible-Hidden button for each frame layer can instantly toggle the effects associated with a frame—a great feature if you like to experiment. You can save frame-and-effect combinations as presets—a real timesaver when you're applying the same effects to a number of images.

Overall, PhotoFrame delivers what it promises: an easy way to create professional-looking image edges and borders. It's a great tool for making images a little more interesting in print or on the Web.—*Maria Langer*

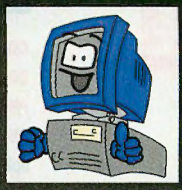
GOOD NEWS: Intuitive interface. More frames. Can apply effects to new Photoshop layer.
BAD NEWS: No printed guide to frames and textures. Minimal printed documentation.

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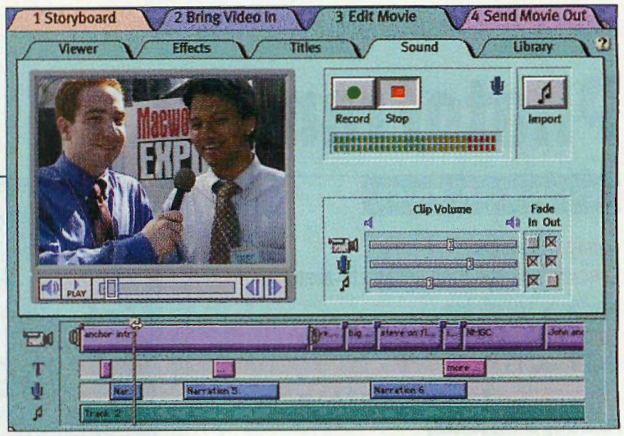
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Avid Cinema 1.3

MULTIMEDIA

COMPANY: Avid Technology
CONTACT: 800-949-2843 or 978-640-6789, http://www.avidcinema.com
PRICE: $299 (SRP); $225 (street)
REQUIREMENTS: iMac or Power Mac with built-in USB port (beige G3 with built-in video inputs/outputs recommended), Mac OS 8.5 or later, 32MB of RAM (64MB recommended)



PUMP UP THE VOLUME—balance your audio tracks with independent level controls. A first-time user will seldom need more.

As video cameras supersaturate society, more consumers have the need for basic video editing. Avid Cinema 1.3 lets everyone from Tarantinos-in-training to people with home video footage edit their movies to make coherent productions. However, since the product doesn't enable USB users to print to video or to create clear blown-up-to-full-screen images, Avid Cinema is difficult to recommend.

A hardware and software package, Avid Cinema includes a USB video digitizer that provides basic tools to convert analog video and edit it on USB-equipped Macs. Owners of beige Power Mac G3s equipped with video inputs can use the Avid Cinema software without the USB capture box. Their captured video will be the same size, but slightly clearer than that of USB users.

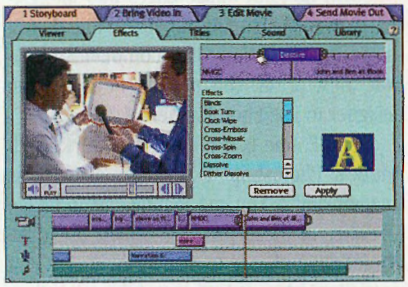
With Avid Cinema's intuitive interface, even if you have little computer experience and no video knowledge, you will soon be comfortable with the entire program as it navigates you painlessly through all the aspects of basic production—from planning to presentation, including digitizing and editing.

The first step is to plan a production. You either choose a prefab story or create an original strategy before shooting. The included storyboards are generally helpful, highlighting camera directions and even editing tips. You can print these pages to take into the field.

After planning and shooting footage, you digitize it. The Avid Cinema manual walks users through cabling their camcorders, with pictures of every supported Mac. To save video as QuickTime movies on your hard drive, just click Record, then name each shot. If you scripted your video before shooting, the clip names correspond to what you wrote in the storyboard.

The editing interface, where all of the video magic occurs, is equally straightforward. In a news-style segment, for example, you can cut out the segments where your anchor rambles, rearrange interviews, add titles that show the names of the people onscreen, put transitional effects between shots, and even add narration and music. Up to this point, the program omits no feature that's really essential for the basic user.

Avid Cinema shows its critical weaknesses when you try to save your completed movie. You can create a VHS tape by cabling your beige G3 with video output directly to your VCR, then press Record on your VCR and click Play in Avid Cinema. But the lack of a save-to-tape option for USB computers is a major oversight. Just as the paperless office hasn't been realized, the tapeless video presentation seldom reaches an audience. If you are an iMac user and want to show your work to Aunt Beatrice in Tucson, for example, you must either email her a huge file or burn a CD-ROM.



LEAVE THE AMIGA OUT OF THIS. You could wind up taking on the local cable access company in a battle of excessive transitions.

Another notable downfall of Avid Cinema is the USB video quality. (Again, users of supported beige G3s largely circumvent this problem.) The 320-by-240-pixel video, although it runs at 30 frames per second, is lower quality than a VHS camcorder's output. Full-screen video playback shows about 200 lines of horizontal resolution—less than what you started with. (VHS tapes contain up to 250 lines and DVDs play at about 500 lines.)

Avid Technology made a great attempt to offer its consumer video solution to owners of USB-equipped Macs. But even for novices, the intuitive interface does not make up for the low image quality and the omission of a USB save-to-tape feature. Supported beige Power Mac G3 owners should consider this product, but others should wait for improvements. We're hoping Avid can take this consumer-oriented approach back to a functional level when FireWire reaches the average user.—*Zack Stern*

GOOD NEWS: Explains basic video production. Intuitive interface. Makes it easy to start creating movies.
BAD NEWS: USB digitizer compromises image quality. No USB save-to-tape option.

Tips to Turn You into a Tarantino

START WITH A STORY. Plan each shot in advance. If the event is spontaneous, at least have a notion of the shots you can't live without.

EVERYTHING HAS A PURPOSE. Be sure that each shot, transition, and title adds directly to your story.

LEAVE FIRE-HOSING TO THE PROS. Avoid pans and zooms unless they help tell the story. Use a tripod whenever possible.

SOUND ADVICE. Even a cheap external microphone will give you better audio than your video camera's built-in mike. Hold it close to the sound source.

THE DEPARTMENT OF REDUNDANCY DEPARTMENT. Narrate only if the viewer can't derive your information from the video. Don't describe what is happening on screen.

THE FINISHING TOUCHES. For snappier dialogue, throw in a conversation about french fries drowned in motherf***in' mayonnaise, or the meaning of Madonna's "Like a Virgin." And don't be afraid to hack an ear off or end your film with a Mexican standoff. Film is art, after all.

reviews

Deathground



FUN & GAMES

COMPANY: Freeverse Software
CONTACT: 800-373-3837 or 212-929-3549, http://www.freeverse.com
PRICE: $29.95 (SRP)
REQUIREMENTS: System 7.6 or later, 20MB of RAM

Modeled after Risk, the classic Parker Brothers board game, Deathground is a game of conquering territories and crushing enemies, though by default the "countries" are New York City neighborhoods and the "armies" are *Dick Tracy*–esque crime organization tommy gunners.

You compete against up to six other opponents, either other humans or the artificially intelligent Mac (since there is no network option, flesh-and-blood foes must take turns at the keyboard controls). As with Risk, Deathground's basic strategy is pretty simple: Take turf and keep it. You receive bonus bad guys based on the size of your territory, so be sure to guard the access points to your underworld empire, then mass your forces and mow down enemies in adjacent boroughs. The skills that separate the godfathers from those who sleep with the fish include placing new troops strategically, acquiring the number of troops necessary to attack enemy neighborhoods successfully, and fortifying your position at the end of each turn. Aside from superficial differences between the mob world and world-domination settings, only a few minor features distinguish Deathground from Risk. For example, you are granted goodies while occupying zones with police stations or hospitals, and you trigger a wide range of game-altering events when you take over neighborhoods marked by randomly appearing bullets.



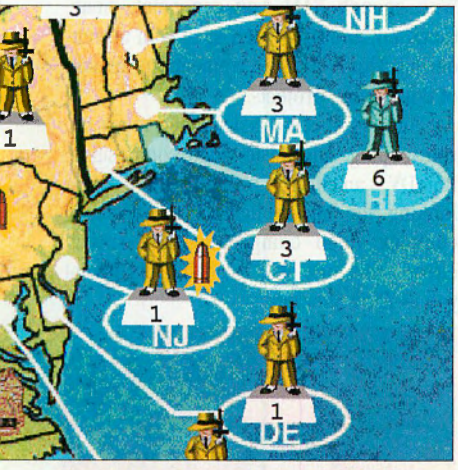
THE GRAPHICS ARE MUDDLED IN NEW YORK—tons of tiny elements appear in the neighborhoods of various boroughs.



FIND A DEATHGROUND demo on The Disc.

The aerial map provides a nice overview of the contested territories when you're fighting for control of the United States or the world, but the New York City battleground is dark and cluttered. You can zoom in on any area when placing troops and attacking enemies, but this quickly becomes distracting and unnecessary. On the plus side, the Demand Surrender feature is wonderful for avoiding long campaigns (a typical game takes at least 30 minutes), the spoken commentary that accompanies every exchange of gunfire is highly amusing, and the user interface is easy to master.

Deathground is a slick little strategy game that will interest teenagers and adults alike, but only when players are competing against human opponents. The Mac-controlled opponents are too easily overcome unless you attack vastly superior forces, although you can skirt the problem of weak artificial intelligence somewhat by making the computer players luckier than you.—*Ed Carmien*



IF THE CITY IS TOO CRAMPED FOR YOU, take on the United States, or even the entire world!

GOOD NEWS: Fun variation on Risk. Random events prevent boring, endless games. You can demand surrender. Amusing voices. Slick interface.



BAD NEWS: No network play. Graphics are a bit cluttered. Weak computer opponents.

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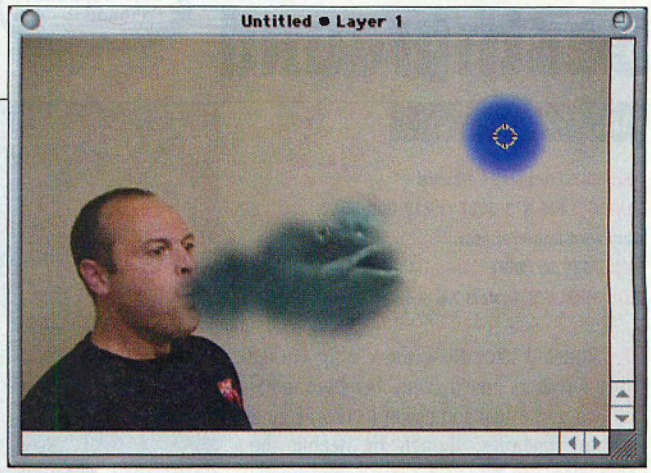
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Fax (503) 624-1635
email: sales@powermax.com

Authorized Reseller

RotoDV

DESIGN & GRAPHICS

COMPANY: Digital Origin
CONTACT: 800-572-3487 or 650-404-6318, http://www.digitalorigin.com
PRICE: $699 (SRP); $399 (street)
REQUIREMENTS: 604, G3- or G4-based PowerMac, 128MB of RAM (256MB recommended), Mac OS 8.5 or later, QuickTime 3.0 or later, 24-bit graphics card, CD-ROM drive, drawing tablet recommended



ROTODV'S BIGGEST FLAW is that it doesn't display brush size—surprising for a paint program.

Digital Origin's description of RotoDV as a tool for painting and special effects for digital video pretty much fits the product to a T. RotoDV sports one of the most impressive tool sets under $1,000 for painting on video. However, despite some excellent painting tools, after just a few hours of use it becomes apparent that RotoDV is a fairly immature product.

RotoDV lets users paint on video in much the same way MacPaint lets users paint on pictures. Using RotoDV's tool set, you can clone parts of one video track onto another to compose special effects (like breathing fire), paint directly onto a video track, or create cel-based animation. These three functions, combined with some sophisticated blends, are the extent of RotoDV's capabilities. Considering its billing as a painting and special effects program, it is surprising that even standard special effects in RotoDV—such as ripples, fire, or lightning—require creating all of your collateral pieces outside the application and combining them with clone and blend tricks. The program also has a pretty limited filter set.

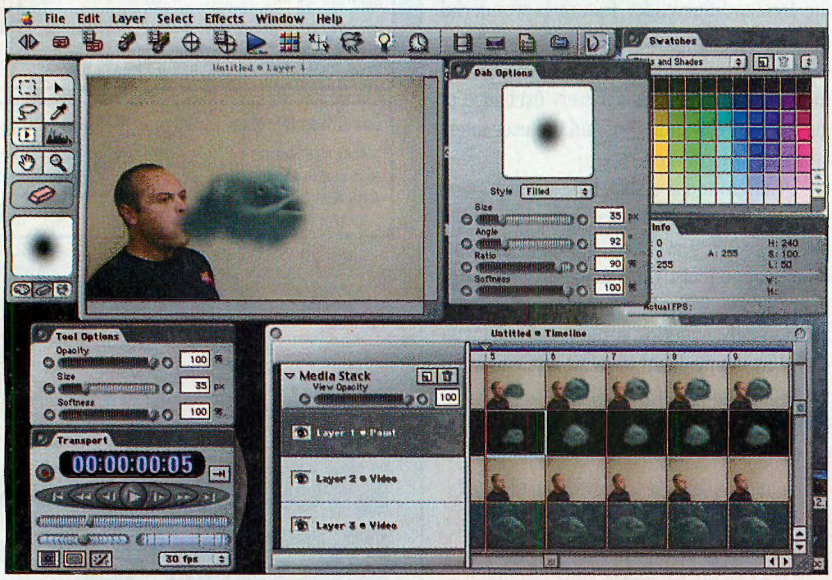
Virtually all of RotoDV's tools are based on painting. The three main tools—paint, clone, and erase—are all modifications to RotoDV's highly customizable paint tool. Through a number of dialog boxes, you can adjust virtually any brush setting's opacity, size, or behavior. Between built-in brushes and options for creating your own brushes, almost any brush shape or style is available.

Unfortunately, RotoDV's brush strengths end there. One major flaw is that there is no option to see your brush size while you are working. Instead, you're forced to work with a representative circle that has no bearing on the shape or size of your brush. Trying to clone a delicate piece of video from one track to the next can be very difficult when you can't see the exact placement of your brush.

Despite some serious limitations, RotoDV works impressively on specific tasks. If you want to remove wires, pull mattes, or do rotoscoping with onion skinning, RotoDV is probably the tool for you. There is no other tool comparable in price that makes video touch-up so easy. In less than five minutes, you can remove hair or dirt from a shot with ease.

RotoDV is also the first consumer-priced video paint program that fully supports digital video. You can work with DV, analog video, NTSC, or PAL using any resolution. RotoDV is a resource hog, but the more RAM you have, the more frames you can load into RAM and work with in real time. With enough RAM, you can paint, clone, touch up, and play video back with no rendering. This can save a tremendous amount of time on big projects.

For very specific tasks, video touch-up, rotoscoping, and basic video compositing, RotoDV is an effective program. But if you're looking for an application that can do complex video compositing and special effects, this one will probably disappoint you.—*Rick Sanchez*



YOU CAN QUICKLY TOUCH UP VIDEO or clone part of an image onto a separate image using RotoDV's painting tools.

GOOD NEWS: Easy to use. Powerful brush tools. Real-time playback from RAM. **BAD NEWS:** Brush size doesn't show on the canvas. Limited special effects and filters. Limited compositing capabilities.

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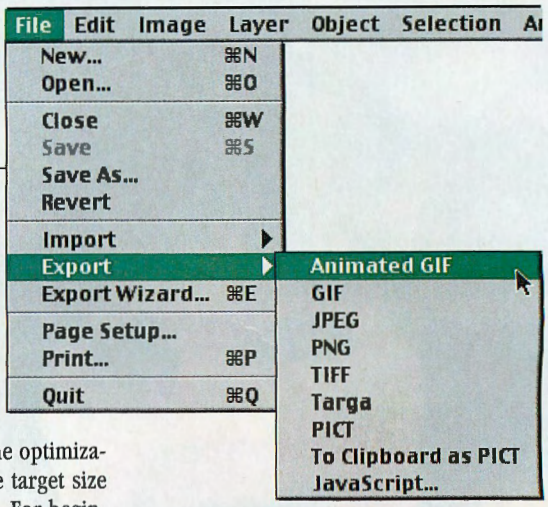
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DESIGN & GRAPHICS

COMPANY: BeatWare
CONTACT: 650-556-7900, http://www.beatware.com
PRICE: $199 (SRP)
REQUIREMENTS: PowerMac, Mac OS 8.0 or later, 32MB of RAM, 10MB of free hard disk space, CD-ROM drive, 256-color display



EXPORT JUST ABOUT EVERY FORMAT you might run into on the Web, either directly from the File menu or via the handy Export Wizard for side-by-side format comparisons.

In an attempt to assemble a truly useful collection of Web development tools, most people either buy an expensive all-in-one program or purchase a multitude of small, specialized programs that aren't comprehensive. When it comes to creating high-impact Web graphic animation, salvation has arrived in the form of BeatWare's e-Picture.

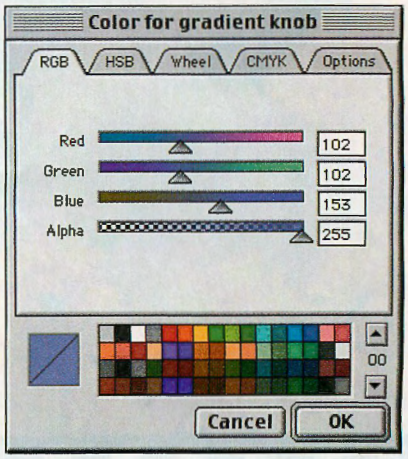
To capture the attention of experienced Web surfers today, many designers feel they must create ever-flashier pages—replete with animated buttons, photographs, and glitzy advertisements. Without the right tools, creating pages with pizzazz can be a royal pain. e-Picture combines the best features of choice Web tools such as Adobe ImageReady and MetaCreations Headline Studio (*Reviews*, Jul/99, p64), without all the complexity. The main interface is palette-based like that of many image-editing programs, but it also contains an intuitive timeline-based animation editor common in programs like Adobe Premiere and Macromedia Director.

It's easy to create spiffy Web banners and advertisements with e-Picture, but don't let the default settings and templates dissuade you from developing unique animations for your Web page. The optimization feature lets you adjust the target size and color depth of animations. For beginners and experts alike, e-Picture generates HTML and JavaScript code for links and rollover effects, which you can either cut and paste or import into your favorite HTML editing tool—a real boon for the quick development of Web page widgets and gadgets.

Like any good image editor, e-Picture includes some basic drawing and painting tools; combined with a wide selection of filters, these provide nearly as much power as Photoshop at less than half the price. Unfortunately, e-Picture currently doesn't support third-party filters and plug-ins such as ImageReady—an oversight that we hope a later version will remedy. Two outstanding features are the unlimited levels of undo and the use of object layers. The program treats every item added to the workspace as an object with unique properties, allowing you to adjust the most arcane intricacies of your animation layout.

The coolest aspect of e-Picture is the animation palette, influenced by animation, video-editing, and 3D-rendering programs like Adobe Premiere, Macromedia Director, and many MetaCreations modeling tools. In the animation palette, you can easily adjust the specific properties of each workspace

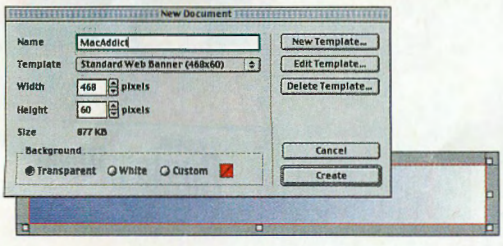
FIND AN E-PICTURE demo on The Disc.



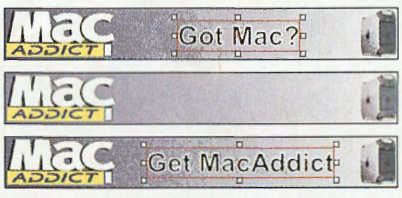
ADJUST THE MINUTE DETAILS—such as gradients—of every object in e-Picture from these easy-to-use control boxes. You'd be surprised how quickly you get a final product.

Banner Basics

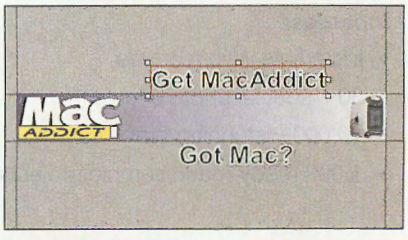
One of the more popular uses for e-Picture is creating banner ads for Web pages. Using some built-in tools combined with stock images, you can whip out ads that would make Chiat/Day quiver in its boots.



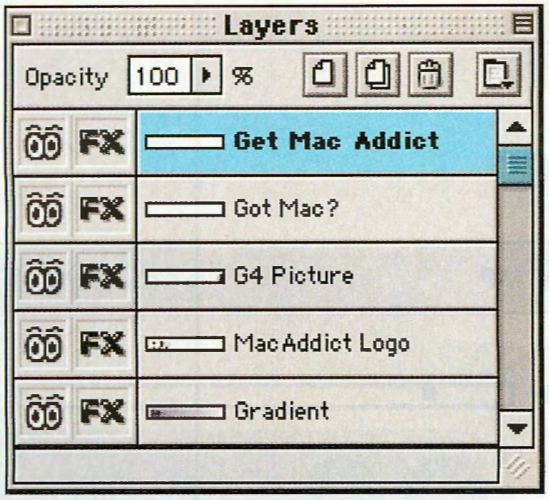
1 After you have selected an image size to work with, design a background. Create a layer and draw a rectangle, then adjust its fill controls and gradient by picking your favorite colors to blend.



2 Import some graphics, including GIFs and 3D objects, to make the ad more interesting. Use separate layers to make image animation easier to control and adjust.



3 Add scrolling text to get your message across. Via the animation control, place text in the first and last frames; e-Picture uses them as keyframes to create scrolling text.

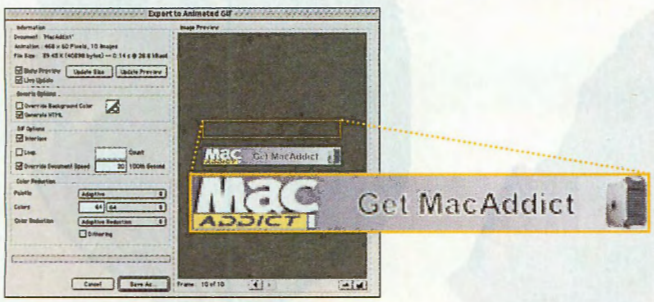


HAVE YOU SEEN ME BEFORE? If you've used an image-editing program recently, you'll already be familiar with Adobe-inspired menus such as layer controls and toolbars.

element (such as color, rotation, and size) over any section of the timeline. Automatic keyframing in the animation palette alleviates all the fuss and muss of placing each item manually into individual frames. Once you're done creating an animation layout, you can use the Export Wizard to estimate download times, adjust bit depths, and view and export two of the nine available file formats all at once, covering almost all the shortcomings of ImageReady and Headline Studio.

This program has an amazing, well-rounded feature set and a user interface that lends itself to producing a final product quickly and efficiently. Improved 3D model handling and the addition of popular video-editing tools—such as fades and wipes—would make e-Picture even better. Though direct importation of QuickTime movies would also be useful, for now you can import a sequence of PICT files derived from Apple's QuickTime player. Rising above the tough competition from Adobe and MetaCreations, BeatWare's e-Picture is your best bet for creating Web animations.—*David A. Koran*

GOOD NEWS: Easy to use—even the most complex features will pose few or no problems for beginners. Great animation interface removes the guesswork and tedious tasks normally associated with image animation. BAD NEWS: Working with 3D objects is a dicey process, offering very few detailed controls. Program doesn't allow direct importation of QuickTime movies. Needs frame transition effects and wipes.



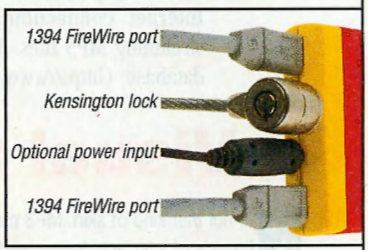
4 Export your animation using the Export Wizard, then view it with different palettes, timings, and loops. Check your final animation file's size and download time.

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SoundJam MP 1.1

AUDIO

COMPANY: Casady & Greene
CONTACT: 800-359-4920 or 831-484-9228, http://www.casadyg.com
PRICE: $49 for CD, box, manual, and audio cables, $39.95 for download of application only (SRP)
REQUIREMENTS: 100MHz PowerPC 603 or faster (G3 recommended), System 7.6.1 or later, CD-ROM drive



SOUNDJAM MP FEATURES great audio controls in its main windows, covering everything from the standard play, rewind, and fast forward buttons to a full ten-band audio equalizer.

FIND A SOUNDJAM MP 1.1 demo on The Disc.

The MP3 revolution is the kind of event that doesn't happen often in the computer world, but when it does, it's the quick who survive. Casady & Greene's MP3 player, SoundJam MP, should make it to the top of the heap. This software MP3 player has the heat—it handles both local and streaming MP3 audio files, it ships with several cool "skins" to let you customize its look, it encodes CD audio into MP3 files quickly and efficiently, and it features several cool plug-ins. In fact, Diamond Multimedia thought it was cool enough to package with the Mac version of the forthcoming Rio 500 as the default software MP3 player.

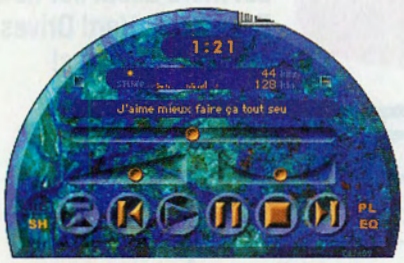
Installation out of the box is easy—just copy the appropriate files over to your hard drive from the CD, launch the application, enter your serial number, and you're ready to listen to your MP3 audio files. With a live Internet connection, you can listen to streaming MP3 files. You can also query a database (http://www.cddb.com) to fill in the artist, title, and album information on almost any song you have in your playlist. The boxed copy also comes with an audio cable to plug into your home entertainment system, instantly turning your Mac into an MP3-playing stereo component.

SoundJam ships with several plug-ins that expand its abilities. The plug-ins include three pieces of eye candy—Eclipse, Melt-O-Rama, and Thumper—which you can open in another window. These psychedelic displays change with the music, creating hypnotic patterns. It's a great way to waste processor cycles (if you're wasted, it's just way great). SoundJam also ships with several different skins that can change the player's looks instantly. The package includes a converter utility that translates Winamp (a popular Windows MP3 player) skins into SoundJam skins. This is great in theory, but most Winamp skins look an awful lot alike. Also, the converter doesn't work with the more visually interesting skins for Audion or MacAmp, two competing Mac MP3 players.

SoundJam played all of our MP3 files (totaling over one gigabyte) without a hitch, providing good-quality audio that we could modify with the built-in equalizer. Through SoundJam's Web menu, we accessed a long list of streaming MP3

A Visual Skin Tour

No, not *that* kind of skin. MP3 players have pushed the bounds of interface design, and SoundJam has done its fair share with several cool skins (slang for custom interfaces). Here's a sampling.



HARD ROCK GETS a new name with the Azure skin. Somebody's really learned how to handle a lapidary saw.



THIS IS ONE OF OUR FAVORITE skins, but figuring out what functions the symbols represent is an exercise in investigative archaeology.



IT WON'T TRY TO EAT your *entire* brain, but the Alien skin might want just a taste.

stations, some of which sounded good even through an analog modem connection. You can also download Arboretum's Realizer plug-in, which lets you tweak and tune streaming MP3 sound quality until you get the best possible sound.

Ripping audio CDs with SoundJam is also a simple matter. Just insert an audio CD, get the disc's information from CDDB, and start encoding. SoundJam does the job quickly, provided it's the frontmost application. You *can* move it to the background while it's encoding audio files, but—as you might expect—it'll slow down markedly. Finally, the latest version of SoundJam is Velocity Engine–savvy, so for all you Power Mac G4 owners out there (ya lucky jerks), SoundJam should encode audio files *really* quickly.

So why buy an MP3 player at all when there are already several freeware and shareware alternatives? First, Casady & Greene has a long history of making great utilities, so you'll know you have a quality product, and you're helping to support the Mac platform. Second, if something does go wrong, you can go to a commercial developer with live, human technical support reps backing the product. Third, SoundJam is simply a way-cool product. Fourth, shareware fees for comparable MP3 players are about what you might pay for SoundJam.

Casady & Greene has done a great job with its entry in the MP3 world. SoundJam MP delivers lots of features for the price, although there are MP3 players available for less. We were a bit disappointed when we couldn't get a couple of spectacular MacAmp skins converted for SoundJam use, but the application itself performed admirably.—*David Reynolds*

IF YOU'RE LOOKING FOR A GREAT WAY to burn through a few hours, set up a long playlist and let the Melt-O-Rama plug-in make visual fun out of your music.





GOOD NEWS: Plays MP3 files well. Great selection of skins. Fun visual plug-ins. Good streaming MP3 support. Web site with lots of add-ons. Can handle CD audio, AIFF, WAV, and QuickTime audio. Fast encoding. Velocity Engine support. **BAD NEWS:** Can't convert MacAmp or Audion skins.



SOUNDJAM COMES WITH A UTILITY to convert Winamp skins, but these are pretty boring—all you'll see are variations on the same theme. Anime fans will find some pretty cool stuff there, though, including some Dragonball Z skins.

REALbasic 2.0

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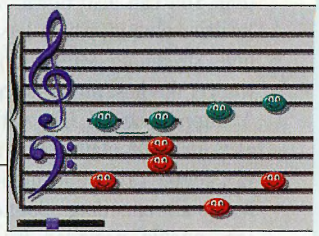
With REALbasic you can build anything from a small utility to a large application or the next great game, faster and easier than ever before.

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Music Ace 2



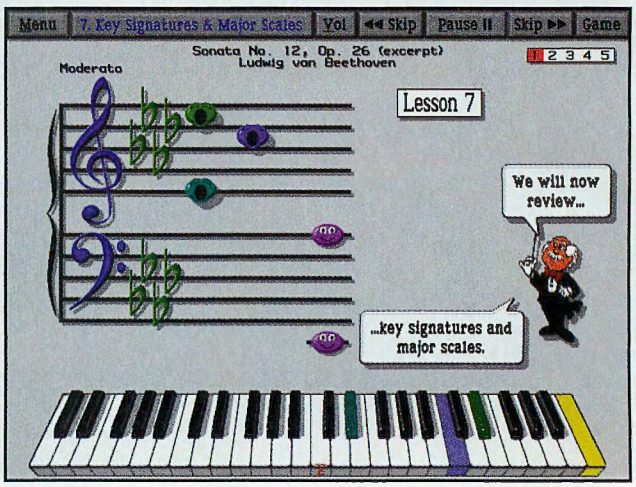
AUDIO

COMPANY: Harmonic Vision
CONTACT: 800-644-4994 or 847-467-2395, http://www.harmonicvision.com
PRICE: $49.95 (SRP)
REQUIREMENTS: 33MHz 68040 or faster, System 7.5 or later, 12MB of RAM (32MB for Mac OS 8), 24MB of free hard disk space, CD-ROM drive, 13-inch 256-color monitor

FIND A MUSIC ACE 2 demo on The Disc.

Remember that boring music lesson with the disenfranchised Juilliard dropout—the teacher you never went back to again? Well, with a modicum of dedication and Music Ace 2 from Harmonic Vision as virtual tutor, your whole family might be giving him music theory lessons by the time they exhaust this software.

Using the Mac's built-in QuickTime synthesizer or an external MIDI keyboard to generate instrument sounds, Music Ace's helpful conductor guides students eight years and up through the program's 24 easy-to-follow lessons and games. A progress screen keeps track of individual results and a high-score page encourages healthy competition, but it's the program's self-paced nature that truly inspires return visits. Including



SHARP GRAPHICS AND SOLID FUNDAMENTALS spice up this completely self-paced learning package.

lessons on major and minor scales, rhythms, intervals, and time signatures, Maestro Max's animated notes and characters effectively illustrate beginning and intermediate musical concepts, though adults may find the smiley-faced graphics more suitable for kids.

The program sounds and performs well on a Power Mac G3, but owners of older, slower Macs will likely have to settle for subpar 8-bit sound output to avoid performance hiccups. Still, Music Ace's comprehensive lesson base, extensive library of 2,000 sample songs, and easy-to-use Music Doodle Pad for writing and saving original compositions combine in a fun and thorough music course.—*Randy Alberts*

GOOD NEWS: Fun. Solid lessons and layout. Great composition interface. Over 2,000 editable songs. Hybrid disc works with Windows, too. **BAD NEWS:** Poor audio performance on slower Macs. Animated characters and games are too kid-oriented for adults.

hollywood

Goofy Golf Deluxe

FUN & GAMES

COMPANY: Squeegee Software
CONTACT: 800-784-1158 or 603-431-7421, http://www.squeegeesoftware.com
PRICE: $24.95 (SRP)
REQUIREMENTS: PowerPC, System 7.5.3 or later, 16MB of RAM, 40MB of free hard disk space, CD-ROM drive, 640 by 480 display with thousands of colors

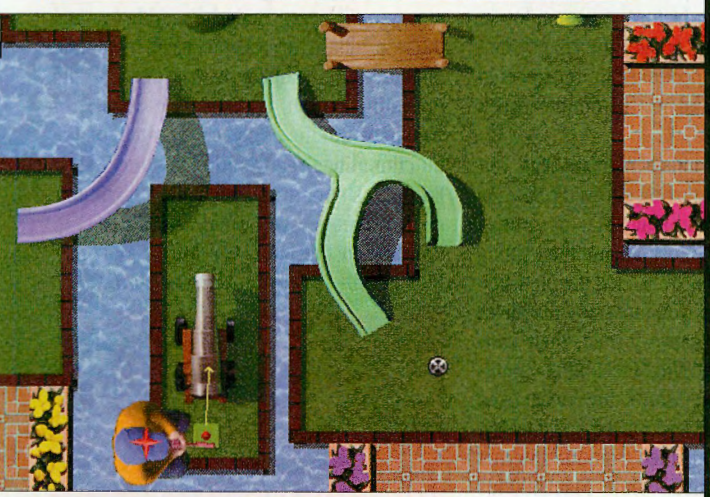
Essentially an updated version of a popular Squeegee shareware title, Goofy Golf Deluxe is a computer simulation of that great American pastime—miniature golf. Up to four players control their own golfers and take turns putting the ball into the cup with as few shots as possible. Goofy Golf Deluxe includes three 18-hole courses, which each take about 20 minutes to play if you're not hopelessly uncoordinated.

The courses include some great, classic putt-putt obstacles, from fire-breathing dragons to rotating windmill blades. What's more, the remarkable cartoon-style claymation graphics allow for some really creative elements you could never experience on a real mini golf course, such as blasting your ball from a cannon!

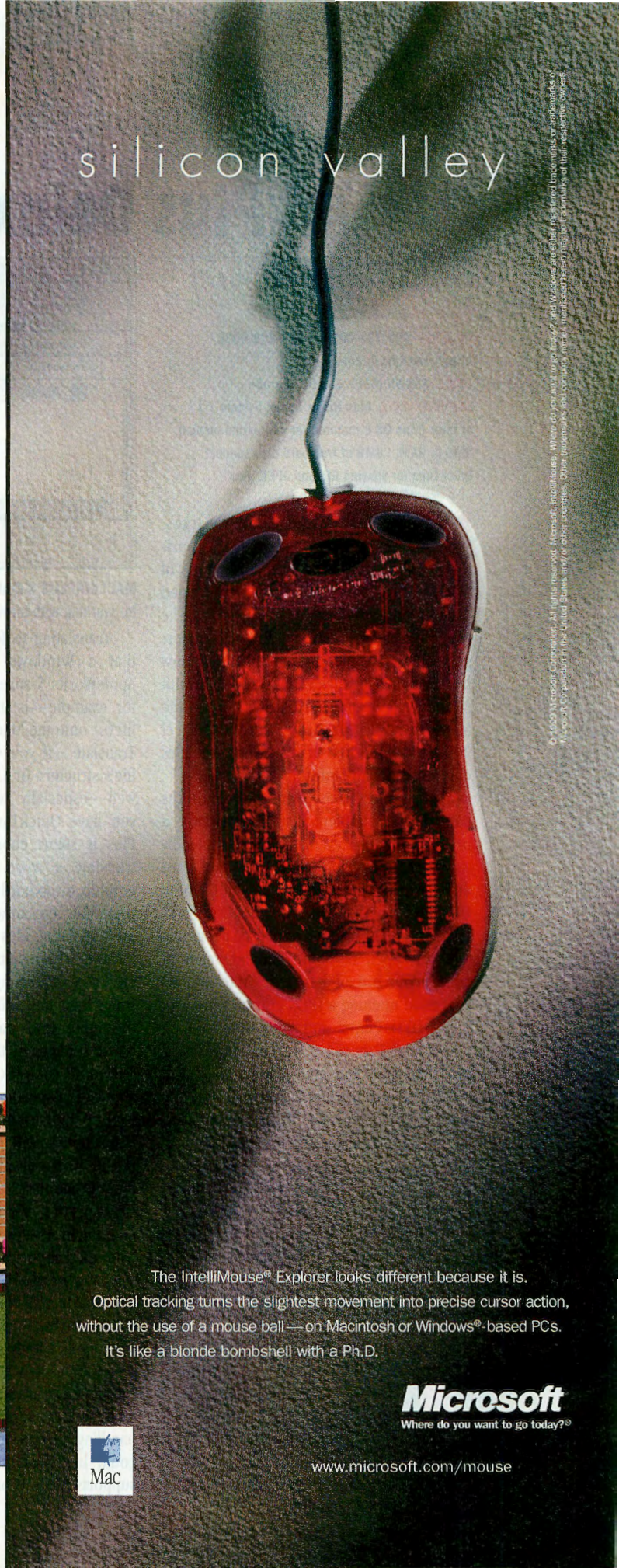
Young and old can play this game, but it does take some pretty good hand-eye coordination. The bird's-eye perspective makes it very easy to aim and shoot, though we would have appreciated having the option to gauge vertical depth from the players' point of view. Also missing is any sort of control for the amount of power behind your putts.

While it's a lot of fun the first few times through, Goofy Golf's gameplay soon becomes repetitive, since there simply isn't that much variety in the holes and courses. As if aware of this shortcoming, Squeegee includes a course editor that lets you create your own holes and courses. Goofy Golf Deluxe delivers what it promises: a simple putt-putt simulation that doesn't break any new ground.—*Buz Zoller*

GOOD NEWS: Great graphics. Very easy to play. Includes a course editor. **BAD NEWS:** Repetitive gameplay. No option to change skill level. Requires disc in drive to run.



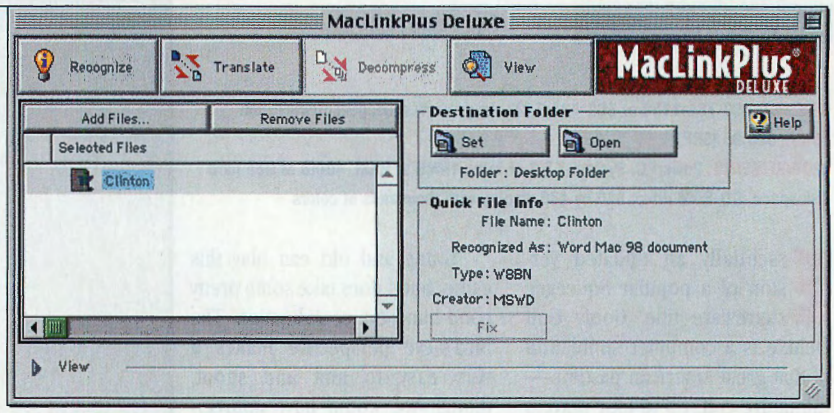
THIS GOLF SIMULATION LOOKS GREAT, but the gameplay can get repetitive.



MacLinkPlus Deluxe 11.0

UTILITY

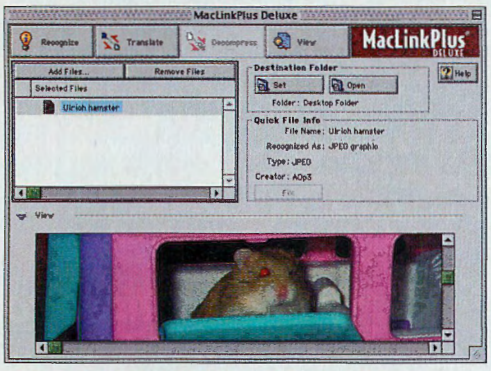
COMPANY: DataViz
CONTACT: 800-733-0030 or 203-268-0030, http://www.dataviz.com
PRICE: $99.95 (SRP), $39.95 upgrade
REQUIREMENTS: Mac IIci or faster, System 7.1 or later (Mac OS 8 required for contextual menus), 8MB of RAM, 20MB of free hard disk space, QuickTime for viewing GIF and JPEG files



MACLINKPLUS'S MAIN WINDOW is easy to understand and use, giving you a powerful tool for working with foreign file formats.

MacLinkPlus Deluxe painlessly translates a bewildering array of proprietary document types, regardless of whether they were created on or intended for use with a Mac or a Windows PC. The venerable file-translation utility has undergone many changes in version 11. It now has the ability to work with files created with AppleWorks 5 and WordPerfect 3.5 on the Mac, as well as files from Word and Excel 2000 for Windows. It also supports files compressed with StuffIt 5.

Translating files with MacLinkPlus couldn't be simpler. Just double-click a mystery PC file, or even a Mac file created by a program you don't have on your hard drive. Working in conjunction with the Mac OS's File Exchange control panel, MacLinkPlus examines the file and lists programs that can open it. Some choices seem to come from out of left field; MacLinkPlus suggested opening a JPEG graphics file with Apple DVD Player and SoundApp, among others. This is because MacLinkPlus lists all programs that can conceivably work with the file, not just the best candidates. Double-click your choice and MacLinkPlus translates and opens it with the selected program.



THUMBNAIL VIEWS SHOW what files look like, so you can decide if you really want to work with them or not.

Translating to foreign file formats—so that a Windows user can open your AppleWorks 5 spreadsheets in Excel 2000, for example—is just as simple. Drag the file(s) onto the MacLinkPlus icon and click Translate. (If you want to look inside the file's structure first, the View feature works well—especially with graphics, provided you have QuickTime installed.) MacLinkPlus is smart enough not to accidentally translate a word processor file into a graphic, or do anything else that would send your Mac into an apoplectic fit. When you are translating files with special formatting, however, the results can be uncertain. For example, converting a Word 98 document with a table into a Nisus Writer file separated the table into paragraphs. Likewise, a WordArt file came through as nothing at all. The more complex your file and the more application-specific features you employ in your documents, the greater the chance that MacLinkPlus will produce an unexpected result, so it's always best to double-check the translations.

In previous versions of MacLinkPlus, you could convert files just by choosing Save As from the File menu in many Mac programs, selecting the desired format, and then sitting back as MacLinkPlus translated the file while it saved to disk. Now you must save the file in your application's native format, then convert it manually with the MacLinkPlus application. This extra step slows down what used to be a straightforward process. Likewise, handling files downloaded from the Internet could be streamlined. While MacLinkPlus supports CPT (Compact Pro), GZIP, SIT (StuffIt 5), TAR, and ZIP compressed files, preparing files that are both compressed *and* encoded—which the freeware StuffIt Expander can handle all at once—is a two-step process. You must first decode the BinHexed or encoded file, then decompress it separately.

The program's online help is easy to access and details each of MacLinkPlus's functions and how to use them. The Preferences window is well designed, and even lets you designate default formats for different file types. For example, you can instruct MacLinkPlus to translate all word processing files into Nisus Writer 4 format.

If you exchange a lot of files with PC users or you often encounter Mac files created by programs you don't have, MacLinkPlus Deluxe 11.0 is an essential utility. Except for particularly exotic formats, you'll never again be unable to open those oddball files. Apple used to bundle MacLinkPlus translators as part of the operating system, up until Mac OS 8.5, so you may unknowingly have much of the functionality already sitting in your System Folder. Depending on your particular requirements, you may not need to upgrade to the latest version of MacLinkPlus at all.—*Mark D. Shuchat-Marx*



GOOD NEWS: Translates most major word processing, spreadsheet, database, and graphic file formats. Supports multiple translations via drag and drop. Intuitive interface. Good online help. **BAD NEWS:** Can't open files from within a program's Save As dialog box. Special formatting sometimes gets lost.

Mac Connect.

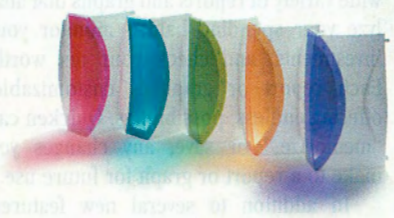


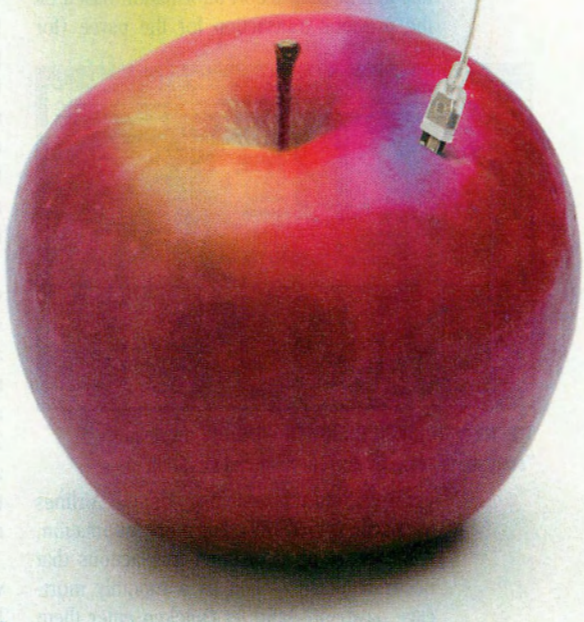
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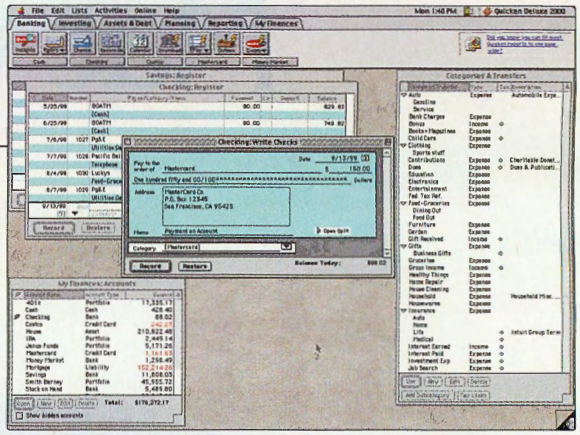
Expanding Possibilities

*Available for HP DeskJet 800 Series models only.

Quicken 2000

PRODUCTIVITY

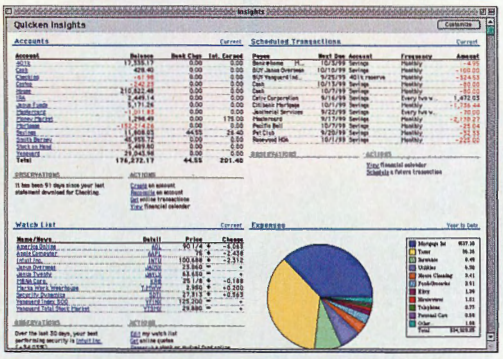
COMPANY: Intuit
CONTACT: 800-446-8848 or 650-944-6000, http://www.intuit.com
PRICE: $59.95 (SRP), $39.95 upgrade (via rebate)
REQUIREMENTS: PowerPC, Mac OS 8.1 or later, 32MB of RAM, 60MB of free hard disk space, 640 by 480 256-color monitor.



QUICKEN'S DESKTOP includes customizable tabs that let you arrange windows by task.

Quicken 2000 takes the drudgery out of managing your personal finances by offering new features that make the job faster and easier, such as an improved interface, a Quicken Insights window for summarized information, and the ability to download historical security prices. Quicken also provides reports and graphs that keep you informed of your financial situation.

Quicken enables you to track transactions and balances for bank, credit card, asset, liability (or loan), and investment accounts. To begin, you enter information into intuitive forms with clearly marked fields for required data, including date, payee name or transaction description, amount, and category. The program's QuickFill feature memorizes and fills in new transaction information based on the previous transaction for the payee (for example, always assigning United Airlines transactions to Travel). For more automation, you can set up scheduled transactions that occur regularly—such as a monthly mortgage payment—and let Quicken enter them for you. It can even print checks. Reconciling or balancing an account is as easy as checking off matched transactions; Quicken performs all the calculations for you. These basic features are well implemented and are faster and easier to use than paper-based record-keeping systems.



THE NEW QUICKEN INSIGHTS WINDOW displays "snapshots" of your current financial situation.

If you have access to the Internet and your bank or credit card company is a Quicken "partner" institution, you can sign up for online account access and online payment. The online access feature enables you to download transactions from your bank directly into Quicken. This makes it impossible to forget or incorrectly enter transactions and keeps your Quicken file up-to-date. Online payment enables you to pay bills by instructing your bank to wire money or send a paper check. It's worth paying the small fee for these services (usually $7 a month or less) to have current information without writing checks, stuffing envelopes, or mailing payments.

The Quicken Quotes feature uses an Internet connection to download stock prices and update the market values of your investments. Quicken 2000 adds a Historical Quotes feature that enables you to download up to five years of stock prices for a security. This is a handy feature for analyzing the long-term performance of investments.

Quicken also offers a number of built-in calculators to plan for loans, taxes, college, and retirement. Additional free calculators, as well as a wealth of information about personal and small-business finance, are available at http://www.quicken.com. Quicken 2000's Online menu includes commands to access Quicken.com pages dedicated to topics such as banking, investment, taxes, mortgages, and insurance.

Quicken's reporting feature includes a wide variety of reports and graphs that analyze your spending habits, monitor your investments, and check your net worth. Each report or graph is customizable, offering endless possibilities. Quicken can "memorize," or save, any changes you make to a report or graph for future use.

In addition to several new features, Quicken 2000 sports an interface makeover. Task-oriented tabs across the top of the Quicken desktop window make it easy to switch from one user-defined set of windows to another. You can further customize each tab with its own account and command buttons. For example, if you use online banking features, you can set up the Banking tab so it includes buttons and windows for each of your bank accounts, as well as command buttons for downloading transactions, creating online payment instructions, viewing the online payees list, and opening the OutBox window.

One great new reporting feature is the Quicken Insights window, which provides customized information about your current financial situation. Each "snapshot"—a summarized collection of information—includes clickable links to Quicken features. You can put whatever snapshots you like in the Insights window and organize them the way you want to see them.

Quicken lacks a printed manual, but the CD offers a well-written user's guide in Adobe Acrobat PDF format. Also included is a Quick Reference Card and extensive onscreen help via Apple Guide. Access additional support through Intuit's Web site. (For more on using Quicken, see "Rope In Your Finances," p54.)

It's easy to see why Quicken is the most popular personal financial software package for Macintosh. Reasonably priced and well-designed, Quicken 2000 offers a complete solution for personal financial management.—*Maria Langer*



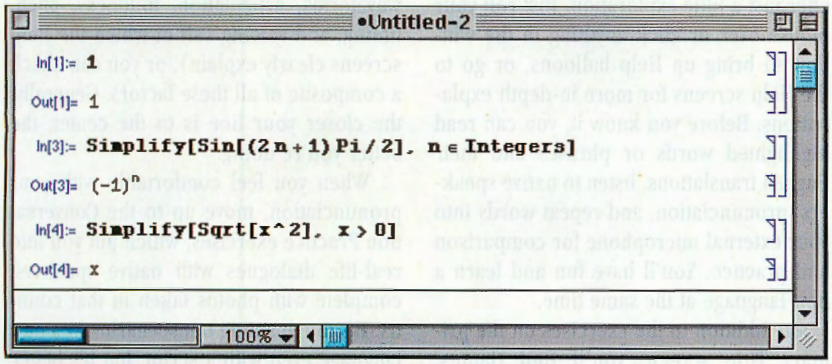
GOOD NEWS: Streamlined interface. More customization options. Better information-gathering tools.
BAD NEWS: Many features require Internet access. Fee for technical support.

Mathematica 4.0

PRODUCTIVITY

COMPANY: Wolfram Research
CONTACT: 800-965-3726 or 217-398-0700, http://www.wolfram.com
PRICE: $1,495 (SRP); $139.95, educational version
REQUIREMENTS: PowerPC, System 7.5.3 or later, 10MB of RAM (20MB recommended), 40MB of free hard disk space (160MB recommended), CD-ROM drive

If you've never heard of Mathematica, skip to the next review with a clear conscience—Mathematica's dominance in the science and engineering market is so absolute that nearly anyone who'd have a use for it would have heard of it. Mathematica has long been the premier symbolic package for mathematicians and theoretical physicists. It is famous for its high-quality, three-dimensional graphics, its ability to handle arbitrary-precision arithmetic, its symbolic-processing abilities, and its enormous, dictionary-size hardback manual. With Mathematica 4.0, Wolfram has once again improved the product by adding a few long-sought features (along with a few more pages in the manual).



DIEHARD USERS WILL CHEER at the sight of this—Mathematica can now correctly simplify expressions using the domains of the variables involved.

Two new features will immediately win praise from longtime users. One of the oldest complaints about Mathematica has been its inability to use information about the domains of variables in simplifying algebraic expressions. It used to leave expressions like Sin[(2n+1) Pi] and Sqrt[x^2] unsimplified, because there was no way to tell Mathematica that *n* was an integer and *x* was positive. All this has changed with Mathematica 4.0—the Simplify command now takes a second argument in which one can specify the domains of variables. On the numerical side, Mathematica 4.0 dramatically reduces the space required for large arrays and significantly improves the speed of array operations.

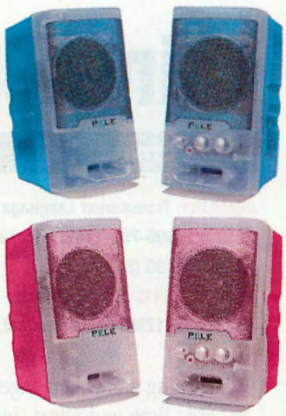
Some aspects of Mathematica are a bit disappointing. Perhaps the biggest shortcoming is the lack of a version for either Linux PPC or Mac OS X Server, which effectively relegates Mac users to client status in many settings. Although Mathematica's unusual structure—in which the front end and the kernel (the part of Mathematica that actually does the work) are separate programs—is often quite useful, the interface between the kernel and the front end is still fairly sluggish; this makes the package feel much slower than it ought to.

Still, these objections are quibbles. Mathematica 4.0 is an outstanding package unequaled on both the Mac and Wintel platforms. Following the tremendously discouraging withdrawal of the Mac version of MathWorks' Matlab, it's good to see that Wolfram is dedicated to supporting the Mac and improving Mathematica.—*Ian Sammis*



GOOD NEWS: You can now set domains for algebraic simplification. Numerical speed increases over Mathematica 3.0. BAD NEWS: No Linux PPC or Mac OS X Server versions. Notebook-kernel interface is still sluggish.

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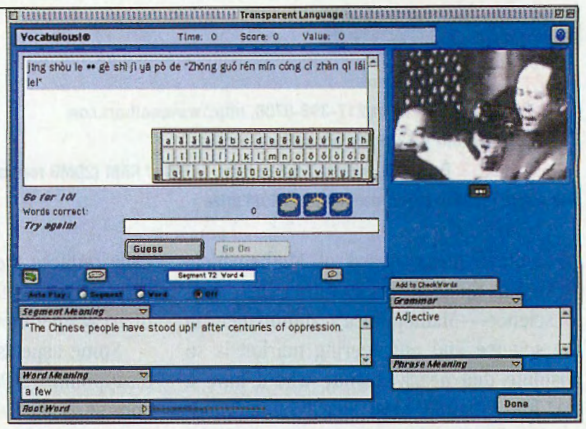
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ChineseNow 7.0.4r11

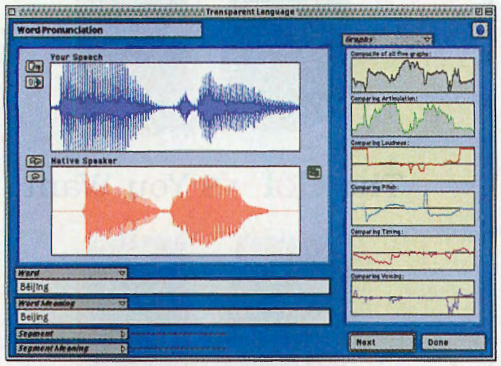
PRODUCTIVITY

COMPANY: Transparent Language
CONTACT: 800-752-1767, http://www.transparent.com
PRICE: $89.95 (SRP)
REQUIREMENTS: 68040 or faster, System 7.1 or later, 4MB of RAM, 12MB of free hard disk space (17MB recommended), 2X CD-ROM drive or faster, external microphone



LEARNING LANGUAGES IS FUN WITH GAMES such as Vocabulous, Unscramble, and Plug-n-Play.

Learning a new language takes considerable time and effort, but the LanguageNow series makes it easier and more enjoyable than reading a grammar book or listening to repetitive tapes. If you want to learn the basics or expand your knowledge of Arabic, Dutch, English (for native Spanish speakers), French, German, Irish Gaelic, Italian, Japanese, Latin, Mandarin Chinese, Polish, Portuguese, Russian, Spanish, or Swedish, LanguageNow can help you. All the programs share a similar design. We tested the Deluxe Edition of ChineseNow.



COMPARE YOUR PRONUNCIATION to that of a native speaker in terms of articulation, loudness, pitch, timing, and voicing, or a composite of all these factors.

The main screen in ChineseNow presents a friendly, almost cartoonish introduction that's especially reassuring if you're new to Chinese. Click Getting Started or the question mark icon to go to Help screens that familiarize you with the theory, concepts, and design of the program. The Help screen takes you to explanations of whatever you clicked, not to an actual area of the program, so remember to close the Help windows and return to the main screen before continuing.

Once you get back to the main screen, you can explore References or Titles. The Chinese Alphabet Reference consists of sets of Chinese characters with their Pinyin and English equivalents, and audio pronunciations. Although it is intriguing to imagine how each character evolved from a pictograph, unless you're planning to learn to read and/or write Chinese characters, it is more practical to begin with Titles, the real meat of ChineseNow.

There are four culturally relevant titles in ChineseNow: Most Common Words In Chinese, Survival Phrases For Chinese, The Chinese Way, and Beijing Yesterday And Today. At first the Title window is intimidating, but you can navigate comfortably after just a little exploration. Just roll your mouse over or click anything in the window to bring up Help balloons, or go to the Help screens for more in-depth explanations. Before you know it, you can read highlighted words or phrases and their English translations, listen to native speakers' pronunciation, and repeat words into your external microphone for comparison and practice. You'll have fun and learn a new language at the same time.

In addition to the exercises on the primary Title screen, you'll find Games, Listen And Speak, and Conversation Practice activities to keep you engaged as you progress. Games include Vocabulous, in which you listen to and read an incomplete phrase, then type the missing word in the blank; Unscramble, in which you listen to a scrambled phrase and then put the words in the correct order; and Plug-n-Play, in which you listen to and read an unfinished phrase, then drag the missing word from a list. These games are entertaining, and you can definitely feel your brain working. Crosswords and Segment Unscramble games are available for more advanced students.

In the Listen And Speak exercises, you can read a Chinese word or sentence, see its English translation, and listen to the correct pronunciation. Then you can record yourself repeating what you hear, and compare—both audibly and graphically—your pronunciation with that of a native speaker. The comparison graphs are very useful, allowing you to examine waveforms, articulation, loudness, pitch, timing, and voicing (all of which the Help screens clearly explain), or you can check a composite of all these factors. Generally, the closer your line is to the center, the better you're doing.

When you feel comfortable with your pronunciation, move up to the Conversation Practice exercises, which put you into real-life dialogues with native speakers, complete with photos taken in that country. It's tough acting out scenarios in a new language even with a script, but it's better to make mistakes on your Mac than in a foreign land, where you don't have an Undo command.

If you're serious about learning a new language and experiencing a different culture, and you want to have a good time while you're becoming proficient, the LanguageNow series is just the ticket for you.—*Alane M. Bowling*

GOOD NEWS: Available for many languages. Intuitive interface. Balloon and online help. Clear audio and lots of it. Culturally relevant content and photos. Fun games and exercises. Graphs for comparing and perfecting pronunciation. Hybrid CD works with Windows, too. **BAD NEWS:** Deluxe Edition extras for Windows only. No printed documentation except CD insert. Limited video.


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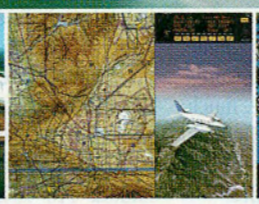

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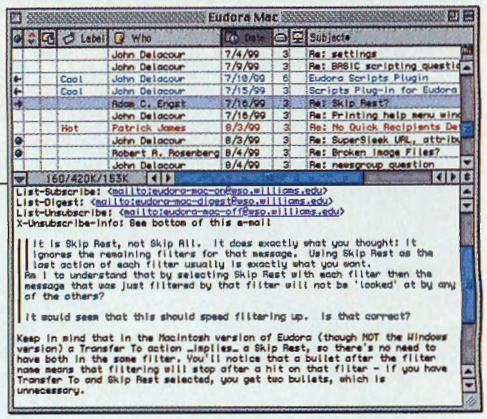
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Eudora Pro 4.2.1

COMMUNICATION

COMPANY: Qualcomm
CONTACT: 800-238-3672 or 619-587-1121, http://www.eudora.com
PRICE: $49.95 (SRP); free upgrade from Eudora Pro 4.x
REQUIREMENTS: 68020 or faster, System 7.1 or later, 10MB of free hard disk space, Internet connection, POP or IMAP email account, CD-ROM drive



A STANDARD EUDORA MAILBOX lists message summaries with an optional preview pane displaying the selected message.

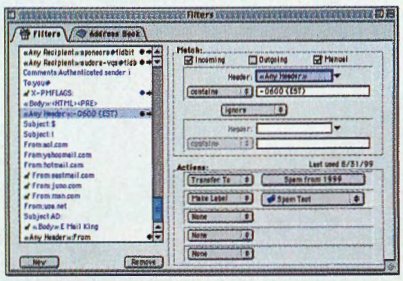
If you get more than your fair share of email missives, you need an effective tool to keep your in-box clutter free. That tool is Eudora Pro 4.2.1.

FIND A DEMO of Eudora 4.2.1 on The Disc.

In continuous development by the same programmer since 1988, Eudora provides far more than the basic features needed to send and receive Internet email. You can view messages in separate windows or in a message preview pane, or have Eudora read your messages aloud using the Mac OS's built-in Text-To-Speech capabilities. You can sort messages by status, priority, label, sender, date, message size, and subject within your mailbox. Eudora helps you follow mailing list threads by grouping ongoing discussions sharing the same subject. Option-clicking any part of a message summary (for example, a sender's name) in a mailbox selects and groups all messages that share the same information—a handy feature.

Eudora's Personalities help you manage multiple email accounts. They also provide interesting synergies when combined with Stationery, message templates that contain email addresses, boilerplate body text, and specific signatures. Stationery is ideal for answers to frequently asked questions or filter-activated autoreplies, and associating a piece of Stationery with a Personality can even, for instance, ensure that all replies to a mailing list use a specific signature.

Flexible filters help you manage large amounts of incoming mail and can identify much of the spam you receive. Plus, a new filter action can speak sender names and subjects of incoming messages, so your Mac can inform you of important emails even when you're working in another application. Two items missing from Eudora's filters are support for regular expressions (which, for example, could detect spam by looking for subject lines composed entirely in uppercase) and the ability to manipulate Eudora's address book (so you could, for instance, add someone to a mailing list if they included "subscribe list" in an email).



EUDORA'S FILTERS ARE EXTREMELY FLEXIBLE when it comes to managing large volumes of incoming email and marking spam.

Eudora Pro's new Search feature lets you define multiple sets of search criteria that can peer into any part of a message. You can search through any collection of your mailboxes, and you can save searches and run them again later. Searching is fast—in one test on a Power Mac 8500, Eudora scanned more than 72,000 messages in 75 mailboxes in just under a minute. Imagine what Ken Starr could have uncovered with a G4 and the latest version of Eudora!

Also new to Eudora Pro is an inline spelling check that colors misspelled words red and underlines them as you type, much like Microsoft Word 98. Microsoft Outlook Express also supports inline spelling checks, but only if you also own Microsoft Office.

The Internet is all about standards, and Eudora doesn't disappoint. The program sends email via SMTP; receives email via POP or IMAP; sends and displays styled text and inline graphics using HTML; encodes attachments in AppleDouble (MIME), BinHex, or uuencode; and can look up addresses in Internet directories via LDAP, Ph, or Finger. (If all these acronyms are Greek to you, suffice it to say that Eudora works with almost every standard out there, so you'll rarely have any trouble sending and receiving emails and attachments.)

Although the Directory Services interface needs work, it can find an old friend's address in Internet directories like Bigfoot, InfoSpace, or WhoWhere directly within Eudora. Emailer users who access America Online will be disappointed, though. Since AOL uses a proprietary mail system and no longer allows developers to support AOL mail, you can't replace AOL's own mail software with Eudora, as you can do with Claris Emailer. Of course, since Apple has abandoned Emailer development, it's only a matter of time before that product, too, stops working with AOL.

Other small but useful features abound. With special <x-eudora-setting> URLs that someone sends to you or that you type into a message and then double-click, you can access numerous hidden settings and options. Double-clicking <x-eudora-setting:258=y>, for instance, sets Eudora to open Command-clicked URLs in a new browser window in the background. To make Eudora autosave messages every 120 seconds, double-click <x-eudora-setting: 11520=120>. Sure, these are pretty geeky features, but they can be helpful, and you don't *have* to use them.

Let's face it. People who receive only a few messages a day can use any email program. But those of us whose lives or businesses revolve around email need a powerful and efficient email program, and in that respect, Eudora Pro is unmatched. Emailer users looking for a modern program with a future and Outlook Express users wanting more power won't go wrong if they check out Eudora Pro 4.2.1.—*Adam C. Engst*

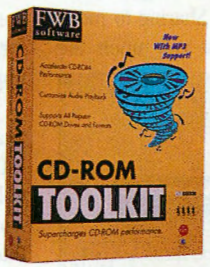
GOOD NEWS: Inline spelling checks. Powerful search feature. Handles multiple accounts. Nickname auto-completion. Message preview panes in mailboxes. IMAP support. **BAD NEWS:** Some interface inconsistencies. PDF-based documentation on the CD-ROM. Printed manual costs $20 extra. No built-in import feature. No AOL access.



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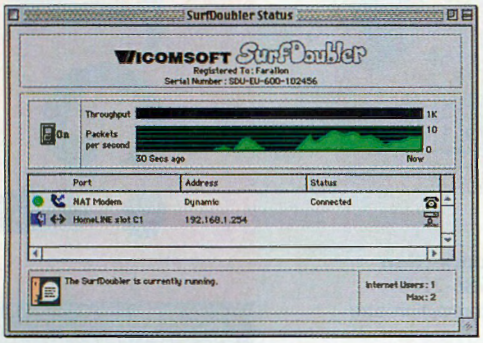
HomeLine Starter Kit

COMMUNICATION

COMPANY: Farallon
CONTACT: 800-613-4954 or 510-346-8001, http://www.farallon.com
PRICE: $139 (SRP), $79 (SRP) for each additional card
REQUIREMENTS: PCI-based Power Mac, 16MB of RAM, System 7.5.5 or later, Open Transport 1.1.2 or later; PCI-based PC, 32MB of RAM, Windows 95 or later

If yours is a multiple-Mac household, you've probably discovered the high cost and aggravation of wiring computers in different rooms. Farallon's HomeLine Starter Kit is one solution. It networks both Macs and PCs using existing telephone wiring and provides everything you need to share files, printers, and a single Internet connection among several computers.

The HomeLine Connection Kit comes with two PCI networking cards that can go in your Mac or PC. With additional $79 cards, you can connect up to 25 computers, though Ethernet is a better choice for larger networks. Installation is simple: Open the computer, pop in the card, and plug the telephone cable from the card into the wall. Existing phones or modems plug into the pass-through connector on the card. You can use these devices while your network is active because the frequency range HomeLine uses differs from that of normal voice and data transmissions. The cards rely on the HomePNA (Home Phoneline Network Alliance) networking standard, which supports most AppleTalk and TCP/IP software. This means you can enjoy multiplayer network games and use Mac OS's standard File Sharing to move files. (Windows users must rely upon the included HomeLine sharing software.)

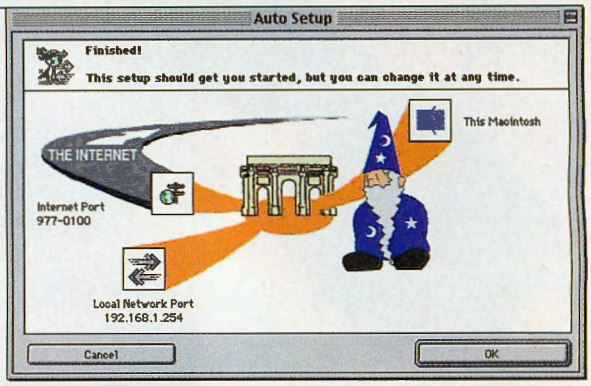


THE SURFDOUBLER STATUS WINDOW on your gateway Mac reports on the traffic going between the Internet and your HomeLine network.

The software is as easy to install as the hardware. Just run the installer to add the necessary files to your hard drive, then use Auto Setup to configure the AppleTalk and TCP/IP control panels. Two troubleshooting utilities—the Farallon Ping utility and HomeLine Link Test—are included to diagnose problems. If all you want to do is share files between Macs, you're done. If you'd like the ability to share most serial printers, you still must download Apple's free LocalTalk Bridge control panel (http://asu.info.apple.com). There's currently no way to share an Ethernet printer over HomeLine, although Farallon should be shipping a similar Ethernet bridge product by the time you read this.

For cross-platform file and printer sharing, HomeLine comes with a demo version of Miramar Systems' PC MacLAN (http://www.miramarsys.com), Windows software that makes PCs compatible with AppleTalk networks. The limitation is that PC MacLAN works for only three hours after you turn on the PC, which may not be much of a burden for casual home users. A fully functional upgrade costs $99, half the normal price.

For sharing an Internet connection—via analog modem, cable modem, DSL, or ISDN—HomeLine includes Vicom Technology's SurfDoubler (http://www.vicomtech.com). Configuring SurfDoubler to act as an Internet gateway can get pretty technical, but the Auto Setup program guides you through the process without a lot of unnecessary technical jargon. SurfDoubler includes a DHCP server that automatically assigns an IP address to all the Macs and PCs on the network (to exceed SurfDoubler's two-user limit, you can upgrade to SoftRouter Plus for $95). An alternative to using SurfDoubler is to access the Internet through a networked PC running the Internet Sharing Connection feature of Windows 98 Second Edition. Regardless of the solution you choose, the networked computers dynamically split the total bandwidth of the Internet connection.



THE AUTO SETUP PROGRAM CONFIGURES everything you need to share files, printers, and Internet connections.

HomePNA supports a theoretical maximum of 1.2 Mbps of network traffic—much less than the 10 Mbps of standard Ethernet, but four times the bandwidth of LocalTalk. We found that for a handful of computers, HomeLine was fast enough for Web browsing, moving files, and other typical home networking tasks.

HomeLine does a good job of simplifying home networking. However, it isn't the answer for everyone. It works only in Macs and PCs with PCI slots, which currently rules out iBooks, iMacs, and PowerBooks (Farallon's promised Ethernet bridge will allow these Macs to work with HomeLine). Also, every computer must be near telephone outlets tied to the same phone line, though you can connect multiple computers to the same outlet with an inexpensive splitter available from Radio Shack. If you can live with these restrictions, HomeLine is an attractive, less-expensive alternative to wireless options such as Apple's Airport and Farallon's SkyLine.—*John Rizzo*

GOOD NEWS: Easy network installation using existing phone wiring. Cross-platform serial printer, Internet, and file sharing. Cheaper than wireless. Free tech support. Good manual.
BAD NEWS: Currently no support for Ethernet printers or Macs without PCI slots. Less network bandwidth than Ethernet and Apple Airport.



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reviews

LabelWriter Turbo

HARDWARE

COMPANY: Dymo-CoStar
CONTACT: 800-426-7827 or 203-661-9700, http://www.dymo.com
PRICE: $249 (street)
REQUIREMENTS: PowerPC, Mac OS 8 or later, serial port (or USB port with serial adapter)



PHOTO BY AARON LAUER

THE LABELWRITER'S SNAIL-SHAPED CASE adheres to that end-of-the-millennium curvy design trend.

The allure of a dedicated label printer naturally depends on how often you print labels. Given the awkwardness of feeding sheets of labels into a general-purpose printer, then tediously calibrating your layouts to ensure that they line up properly with the sheet's multiple columns, even labeling dilettantes might benefit from a specialized device for cranking out the occasional address sticker. Dymo-CoStar's LabelWriter is available in three models—the EL 40, EL 60, and Turbo—but we reviewed only the top-of-the-line Turbo version, a flexible and speedy contraption that commands a $100 premium over its cheapest sibling.

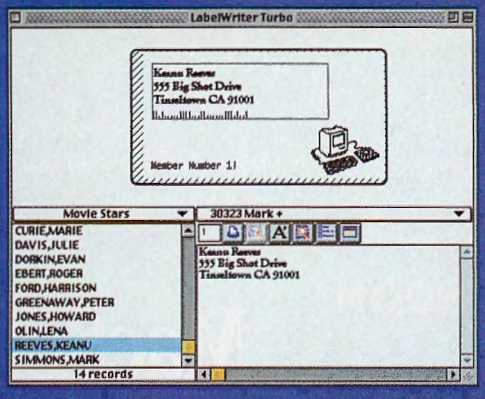
Aside from maximum label size capability and printing speed, the three LabelWriter models are essentially identical. Housed in a rounded enclosure that might remind you of a Rolodex, an office tape dispenser, or perhaps even a plastic snail, the LabelWriter sports a pop-up lid that allows easy replacement of label rolls. The self-adhesive labels get fed past a thermal printhead, where the miracle of heat transfer emblazons your information onto the label's surface. The LabelWriter requires special thermal labels available from Dymo-CoStar and Avery, but needs no ink-jet cartridges or other consumables; the printhead is rated for 500,000 labels. Though the printer is designed for the serial port on older Macs, it works just fine with a serial-to-USB adapter.

On the software front, you have a couple of choices. Since the LabelWriter comes with a standard Chooser extension, you can prepare labels in your preferred application (AppleWorks or FileMaker Pro, for example) and print to the LabelWriter just like any other printer. Alternatively, you can use the included Dymo Label Software to create label templates, compile addresses, and then send them off to the label printer without changing the default settings in the Chooser. We have mixed feelings about the label software, which provides some clever convenience features via a quirky and unfamiliar interface. Given the program's robust data-importing capabilities, you might be better off transferring addresses from a database or contact manager whenever you need to print labels, rather than trying to manage them within the label software itself—especially where disk and videocassette labels are concerned.

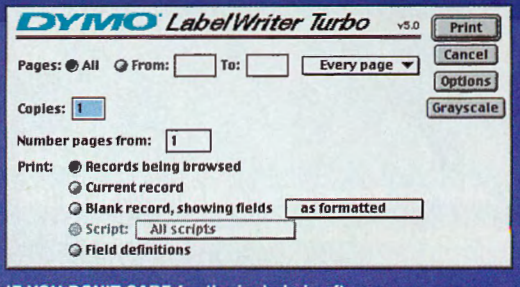
While these hardware and software features are common to the LabelWriter series, two features set the Turbo model apart and justify its higher price. First, there's its speed; capable of spitting out a no-frills address label in just two or three seconds, the Turbo is more than twice as fast as the EL 40 and EL 60 models. Second, the Turbo shares the EL 60's expanded selection of label types. With a maximum width of 2.25 inches versus the mere 1.5 inches of the EL 40, the two higher-end models can tackle such exotica as shipping labels, disk labels, and name badges. But for those whose labeling needs don't extend beyond normal addresses, file folders, and videocassette spines, the $149 EL 40 model might be a more prudent purchase.—*Mark Simmons*

GOOD NEWS: Cranks out labels easily and quickly. No consumables other than labels. Automatic bar code insertion. **BAD NEWS:** Funky label design software. Internet postage available only for Windows.

An Eccentric Interface



THE DYMO LABEL SOFTWARE included with the LabelWriter is a combo address manager and label-design tool. Some nifty features balance this awkward interface: Labels can include text, graphics, and serial numbers; zip codes can appear as bar codes for quicker post office processing; and autopaste and autocapitalization options ease data entry. But formatting, editing, and deleting layout items is awkward.



IF YOU DON'T CARE for the included software, you can select the LabelWriter in the Chooser and print labels from any of your regular applications. While you'll have to design templates for each application, at least you'll avoid creating multicolumn layouts for full-size label sheets.

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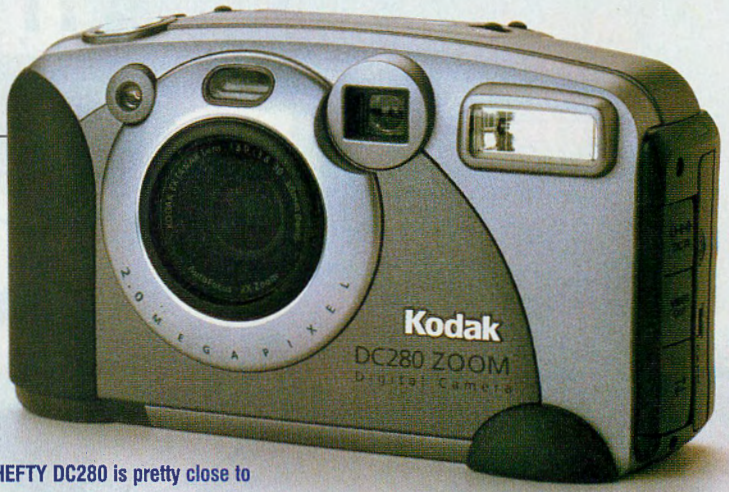
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Kodak DC280

HARDWARE

COMPANY: Eastman Kodak
CONTACT: 800-235-6325 or 716-724-4000, http://www.kodak.com
PRICE: $799 (SRP); $635 (street)
REQUIREMENTS: PowerPC with serial port, System 7.5.5 or later (Mac OS 8.5 required for USB transfer), 32MB of RAM, 70MB of free hard disk space (older 68K Macs can bypass PowerPC-only transfer software and copy images to the computer's hard drive through an optional SCSI PC Card reader)



PHOTOGRAPH BY AARON LAUER

KODAK'S HEFTY DC280 is pretty close to perfect for a basic point-and-shoot digicam.

Kodak's first-ever 2-megapixel digicam, the DC280, is a "feel-good" camera. It feels good to hold, good to set up, good to shoot with, and really good when you see the image quality it produces. That's not to say it's perfect, but as an all-around point-and-shoot, it comes pretty close. Kodak hasn't reached its potential in digital camera design because it has sometimes ignored features customers want and included unnecessary features instead. The DC280, however, is cause for celebration and shows that Big Yellow may finally be on the right track.

The first thing you'll notice about this two-toned gray-and-black beauty is its weight. Most digicams are almost too light to hold steady while shooting pictures, but this camera has the heft and feel of a conventional 35mm point-and-shoot and is perfectly balanced. Its optical viewfinder is slightly larger and brighter than most others, too.

The Kodak DC280's setup is a snap, unlike the Epson PhotoPC 800's (*Reviews*, this issue, p90). A simple, intuitive scroll-through menu sets all functions to your preferences. Let's take a scroll.

One button turns on the menu, and two others move you up or down through highlighted items. For example, if you want to set compression quality, scroll down to the Quality icon and press what Kodak calls the Do It button to view three choices: Good, Better, and Best. Make your choice, press Do It again, and you return to where you were in the main menu hierarchy. Nothing could be simpler.

You've got a fair number of choices, too. You can add a date stamp, adjust exposure (just darker or lighter; no f-stops or shutter speeds), add a border to your picture, select resolution, set white balance (or leave it at auto), choose matrix or spotlight metering, sharpen or soften images, and double the ISO for low-light pictures without flash. You can also lock your exposure at a certain setting—for example, giving all the pictures in a panoramic series a consistent look.

Of course, the camera has some shortcomings. The optical zoom lens is limited in range—only 30mm to 60mm (equivalent)—and it's a bit slower than most—f-3.0 at the wide end and f-3.8 at full telephoto. It's also not threaded, so you can't use auxiliary lenses. You can shoot only three rapid-fire shots when you first turn on the camera; thereafter it's a longish 13 seconds between shots at any resolution. The LCD monitor doesn't display images in real time; at about 20 frames per second, it's a bit jerky when you move the camera to frame an image. And the effective monitor size is only 1.6 inches because of the unusual image proportion.

Since the DC280's high-resolution image size is 1,760 by 1,168 pixels, you can print a 4-by-6-inch photo without trimming a pixel. But this is a *2-megapixel* camera—hardly what you'd buy to output small pictures. To print an 8-by-10-inch photo, you must lop off a bunch of pixels from the long side of the image, so effective resolution is only 1.7 megapixels (or 1,460 by 1,168 pixels). Still, since 8-by-10-inch images print very well, perhaps this is quibbling.

To its credit, the DC280 does have a complete top-deck status display of all critical menu settings and lets you set the flash modes, self-timer, and macro mode using three buttons. You can examine pictures on the LCD right after you take them, and delete unwanted shots immediately.

Other features include slide-show capabilities and NTSC or PAL video out—so you can view pictures on TV. If you're going to use either feature, though, make sure you buy the optional AC adapter or you'll quickly drain the batteries. The camera comes with a 20MB CompactFlash card and four Kodak NiMH batteries, plus a charger.

Finally, a Kodak-exclusive menu mode lets you prepare your images for instant printing on any of Kodak's 20,000 Picture Makers. These big blue-and-yellow machines in drugstores and other locations produce almost-instant photos guaranteed to last as long as conventional silver-halide film prints.

The Kodak DC280 comes bundled with Adobe PhotoDeluxe 2.0 and PageMill 3.0 (for putting images on the Web), and includes a Photoshop plug-in (to bring in images and control the camera from your Mac). There's also a utility to exchange picture borders with the camera, software for both serial and USB image transfer, and ArcSoft's PhotoPrinter, which allows you to print multiple-size images on a single sheet of paper.

The DC280 may not be the most sophisticated digicam in the world, but it shows that Kodak is beginning to give customers the kinds of cameras they want. Now all Kodak has to do is work on competitive pricing, since other manufacturers currently offer digicams with similar features at a lower cost.
—Arthur Bleich



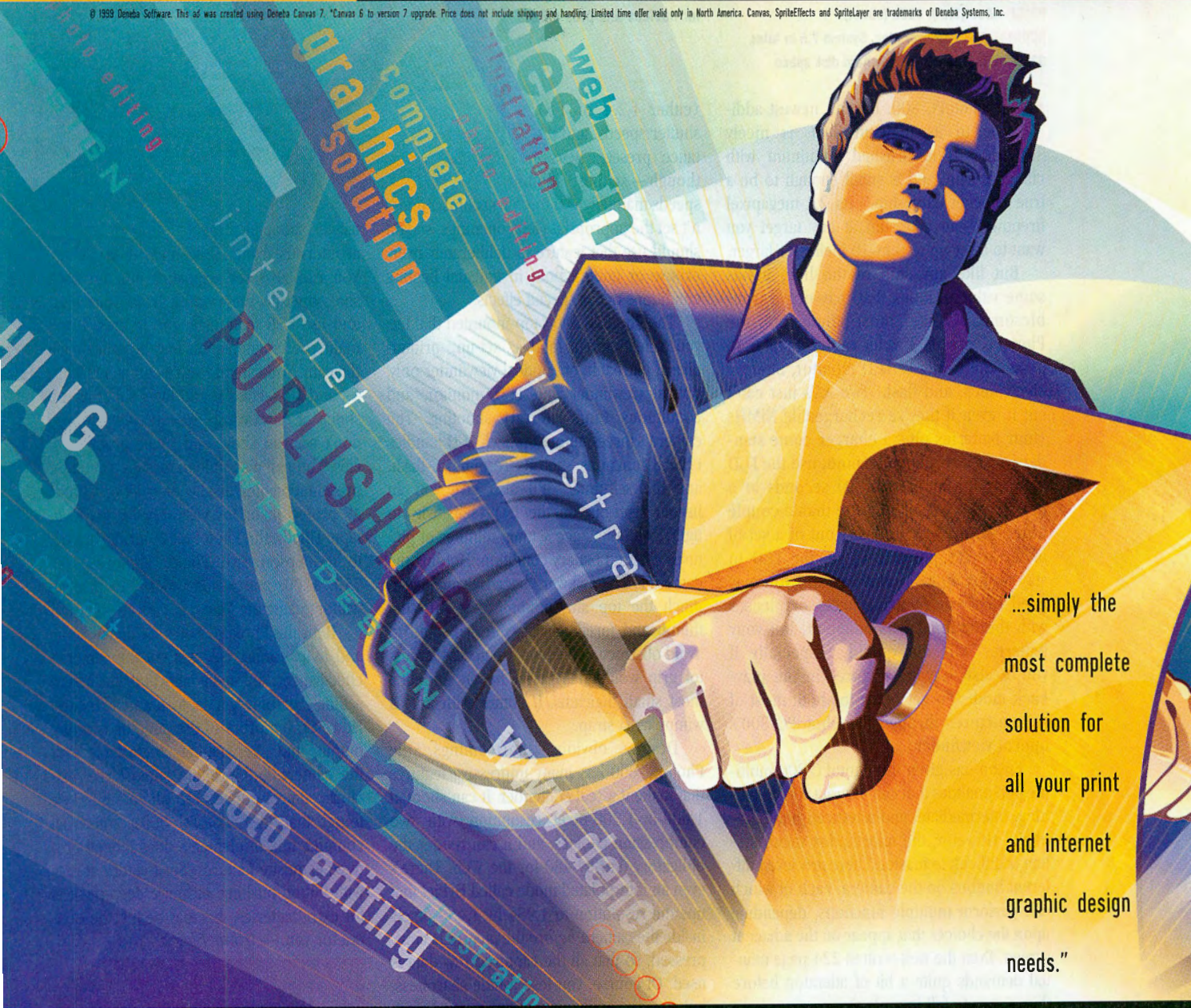
GOOD NEWS: Lightning-fast learning curve. Good control-button layout. Bright optical viewfinder. 20MB memory card. Excellent software package. USB and serial ports. Both NTSC and PAL video. Slide-show capabilities. Very solidly built.
BAD NEWS: Slow compared to other 2-megapixel digicams. No threaded lens for accessories. Plastic tripod socket. Image proportion awkward for large prints. Small LCD monitor. Other digicams provide more features at lower cost.

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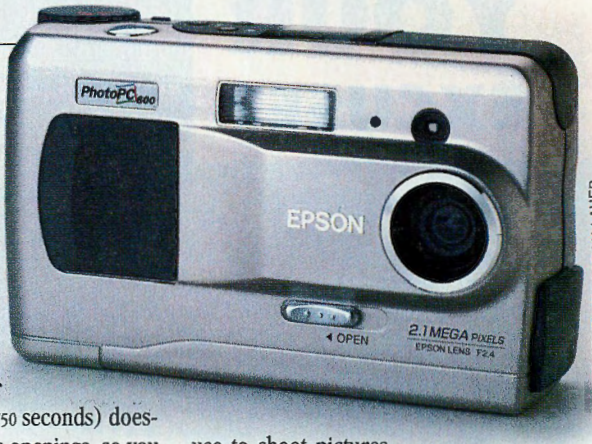
No comparison.



Epson PhotoPC 800

HARDWARE

COMPANY: Epson America
CONTACT: 800-463-7766, http://www.epson.com
PRICE: $699 (SRP); $550 (street)
REQUIREMENTS: Power Mac, System 7.5 or later, 32MB of RAM, 30MB of free hard disk space



A ROBUST CAMERA, the PhotoPC 800 is designed for novices and pros alike.

PHOTOGRAPH BY AARON LAUER

The PhotoPC 800, Epson's newest addition to its digicam fleet, is nicely armored in brushed aluminum with charcoal trim, and is small enough to be a true "pocket battleship." Its 2.1-megapixel firepower can take aim at any target you want to blow up to 8 by 10 inches or larger.

But like any ship of the line, it has some vulnerabilities that may prove troublesome. Unlike most digicams, the PhotoPC uses 3.3 volts rather than 6 to power the camera's LCD monitor, internal electronics, and flash. Two AA's just can't cut it, even if they're rechargeable NiMHs (four batteries plus a charger come standard). As a result, you cannot use the LCD monitor for more than 10 seconds at a time if you want to get more than a couple dozen pictures (with flash) out of a set of batteries. It's possible to set the LCD to stay on for up to 3 minutes (and you may need to if you're using accessory lenses with the optional lens adapter), but your batteries will die quickly, especially if you're also viewing pictures in the playback mode. So get ready to shoot most of your pictures through the PhotoPC 800's optical viewfinder.

Epson has given the PhotoPC 800 multiple personalities that can interact with beginning, intermediate, and advanced photographers. However, the unorthodox menu system is difficult to master. There are seven different buttons on the camera, each of which can perform multiple functions, depending upon the choices that appear on the adjacent screen. Even the well-written 224-page manual demands quite a bit of attention before things start to fall into place.

The beginner's setting turns the camera into an entirely automatic (including focus), typical point-and-shoot. You can set various program modes in the intermediate level depending on the kinds of shots you want: action, landscape, or portrait. Advanced mode allows adjustment of lens openings (either f-2.4 or f-8), shutter speeds, and distance presets. Beware, though—setting shutter speeds manually (1/2 to 1/750 seconds) doesn't set the appropriate lens openings, so you should use that feature to deliberately overexpose or underexpose in unusual lighting conditions or for special effects.

The PhotoPC 800's top-mounted dial lets you select seven modes: set-up, printer-direct, playback, off, optical viewfinder only, optical viewfinder and LCD monitor, and continuous (and interval) shooting. The camera's three-button top deck LCD handles critical functions such as resolution, flash, and the self-timer. It'll also give you an instant read-out on the ISO (sensitivity to light), white balance setting, number of pictures left, and battery condition. Holding the camera is a bit awkward because you have to pinch the top and bottom of it with the thumb and forefinger of your left hand to avoid obstructing the lens (an accessory pistol grip would help a lot here). And like most small digicams, it comes with only a wimpy wrist strap.

Despite obvious shortcomings, the PhotoPC 800 has many impressive features that make it a real contender. It can shoot at 1,600-by-1,200-pixel resolution with two compression choices, and it can render the obligatory 640 by 480 for the Web. There's even an interpolated mode called HyPict that ups the resolution to 1,984 by 1,488 pixels inside the camera *before* the picture is compressed, so that all the captured raw data is used. Of course, you lose a little sharpness, but you can easily correct the image before you print it with an image editing program.

Other good attributes are fast-interval shooting (about a picture per second) at 1,600-by-1,200-pixel resolution, a burst mode that can work in conjunction with the self-timer (so you can analyze your golf swing), and a time-lapse function you can use to shoot pictures at intervals from 10 seconds to 24 hours. You can also see exposure info for each shot, operate the camera from your Mac, and use USB to transfer the images. If you make presentations, this may be your dream digicam. You can add voice comments in 3-, 5-, and 10-second sound bites either as you shoot or afterward, exclude pictures you don't want to show, and rotate pesky verticals. You can also upload existing computer presentations for display on a TV or with an AV projector, or for easy transfer to videotape. Finally, the PhotoPC 800 prints directly to the Epson StylusPhoto, PhotoEX, 700, 750, 1200, and Stylus Color 740 printers without using the Mac.

Both the PhotoPC 800's 2X digital zoom and its panorama settings cut the camera's effective resolution in half, and the macro setting can only get in to about 6 inches. However, the proof of the pudding is in the output, and after getting comfortable with the camera and printing some large, luscious, almost-artifact-free photographs, we found that the PhotoPC 800's somewhat complex mix of elements does indeed produce exquisite pictures. So if you're at ease with button-pushing and have deep pockets for extra batteries, this may be just the camera for you.—*Arthur Bleich*

GOOD NEWS: Images to 11 by 14 inches. Fast interval shooting. Bright optical viewfinder. USB and serial. Video out. Perfect for slide shows and presentations. Direct output to printers. Voice recording. **BAD NEWS:** Fingers can easily obstruct the lens. Moderately difficult learning curve. Short battery life. Nonintuitive menus. Digital zoom. Plastic tripod socket. Too many function buttons.

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Quake III

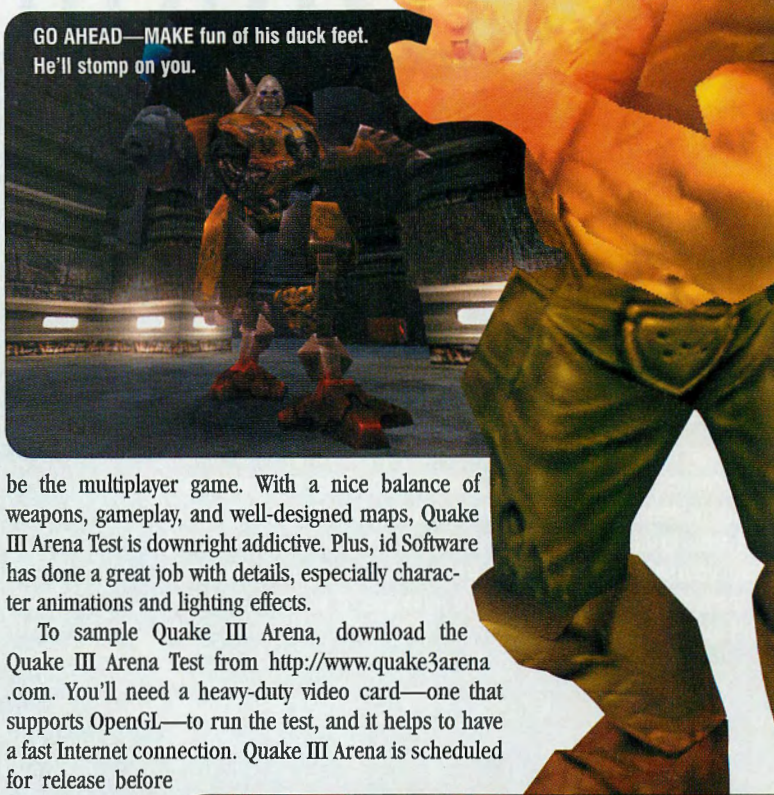
Quake III Will Rock Your World—Once You Start, You Can't Stop

Since the release of the first test build of Quake III Arena in late spring this year, we've been doing research—lots and lots of research—on the game. We've been playing it, pounding it, fragging and being fragged. But we're not the only ones. Seems there are *lots* of folks "researching" this killer new game, and there are lots of dedicated servers out there, places for folks to meet and shoot. All of this attention is just for the test version—the complete version of Quake III Arena will get even more.

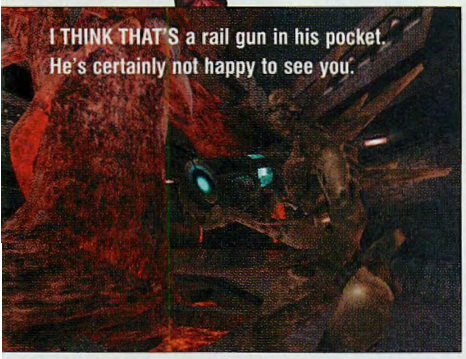
Though originally slated to be just a multiplayer game, Quake III Arena will now feature a single-player mode with a state-of-the-art artificial intelligence moving the enemy after you. As attractive as a well-designed first-person shooter is, the *real* draw will still be the multiplayer game. With a nice balance of weapons, gameplay, and well-designed maps, Quake III Arena Test is downright addictive. Plus, id Software has done a great job with details, especially character animations and lighting effects.

To sample Quake III Arena, download the Quake III Arena Test from http://www.quake3arena.com. You'll need a heavy-duty video card—one that supports OpenGL—to run the test, and it helps to have a fast Internet connection. Quake III Arena is scheduled for release before the end of the year and will carry a suggested retail price of $49.95.—*DR*

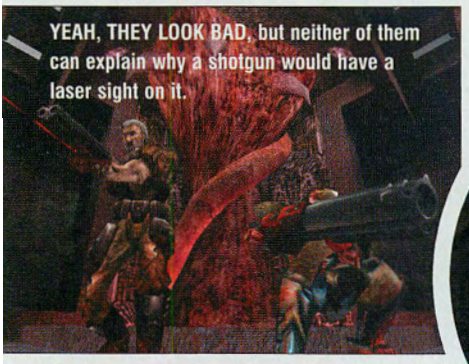




GO AHEAD—MAKE fun of his duck feet. He'll stomp on you.



I THINK THAT'S a rail gun in his pocket. He's certainly not happy to see you.

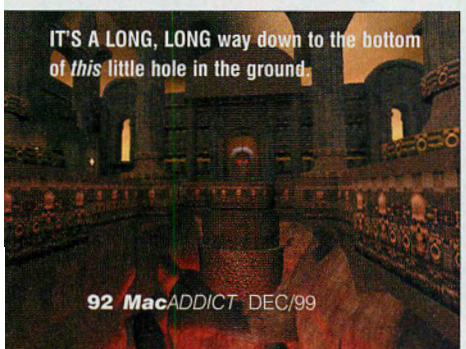


YEAH, THEY LOOK BAD, but neither of them can explain why a shotgun would have a laser sight on it.





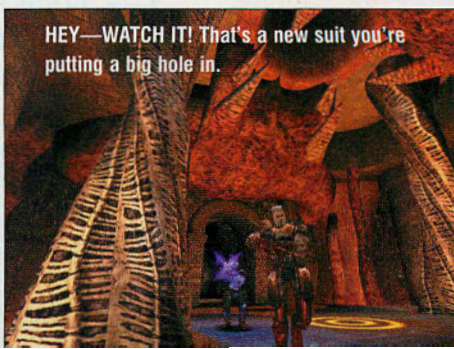
OUCH, THAT'S GONNA LEAVE a mark. Notice the amazing transparencies around the gun muzzle and the lighting on the walls and floors



IT'S A LONG, LONG way down to the bottom of *this* little hole in the ground.



MISSED ME BY that much! Unless it explodes, close isn't close enough.



HEY—WATCH IT! That's a new suit you're putting a big hole in.

Top 10 Quake III Tips





Armor up. Grab armor when you can. It shields you against damage from hits and falls, which will keep you from cratering on long jumps.

Keep moving. Stand still, and you'll get fragged fast. It's better to move constantly to avoid bullets, rockets, and even the dreaded gauntlet.

Jump like a bunny. A corollary to the previous tip: If you jump around like a maniac while people are shooting you, they'll have a *really* hard time drawing a bead with almost any weapon—but especially the high-accuracy rail gun.

Learn great aim. This is especially true with the rail gun, which can do *tons* of damage but requires highly accurate aiming. If you become a crack shot with this weapon, you'll own the game.

Reach out and gun someone. Although the Quake III machine gun is puny compared to its Marathon counterpart, it's surprisingly good as a distance weapon.

Learn to lead. Some of the most powerful Q3 weapons—the rocket launcher and the plasma gun—have *slooow* projectiles, so you'll need to lead your targets accordingly. From a distance, this means anticipating your target's actions.

Look before leaping. Jumps beyond a certain distance will do you some damage, so don't just go leaping around on those fun-to-use jump pads, or you'll be sucking your health down—fast. Armor can protect against this to some extent.

Sidestep. A target can fire at a target and evade return fire by sidestepping without approaching or retreating.

Master mouselook. Play with mouselook on from the start—that is, use your mouse to control where your character looks. This beats keyboard-looking by a mile, and it'll keep you alive.

Use Q3Finder. Go to http://quakefinder.telefragged.com and download a copy of Scott Kevill's wonderful Q3Finder utility. This application locates active Quake III servers and lets you jump right into the action.—*DR*

The Dirty Dozen

Check out this winter's lineup

It's that time of year again, when the air smells of desperation and loneliness, and all the new games come out just in time to be snatched up as gifts for us hard-core Mac gamers. So we hope. Here are our top picks. They should be out in time for that last-minute holiday buying frenzy, but take availability with a grain of salt—although the companies below hope to have their games out on time, they can't guarantee it.

1 (DR) **Heretic II—*Logicware*** Using the Quake II engine, the third-person game Heretic II casts you as a hero in search of a cure for a plague infecting the entire realm. Think Tomb Raider meets Quake meets Diablo.

2 T&E **Tomb Raider III—*Aspyr Media*** Tomb Raider III should give Lara-obsessed fans of all stripes their fill of the freakishly proportioned heroine. It's one of the most challenging games you'll ever play.

3 (1) **Madden NFL 2000—*Aspyr Media*** It's fall, and football fever has gripped the Mac gaming world, driven by Madden NFL 2000—the first real sports game to come out for Mac in many years.

4 (7) **Descent 3—*Interplay*** The follow-on to the motion sickness–inducing Descent, this fast-action shooter pits you and your armed vehicle against an army of robotic drones gone mad deep inside planetary tunnels.

9 CE **Baldur's Gate—*Interplay*** This isometric third-person game takes place in TSR's Forgotten Realms setting. Your party is plunked down in the middle of unrest in the Baldur's Gate region.

12 18+ **Unreal Tournament—*MacSoft*** The only real contender to Quake III Arena in the multiplayer game genre is Unreal Tournament, which features breathtaking graphics, a great new selection of weapons, and maps interesting enough to keep you occupied for hours while you're fragging friends.

13 MM **Half-Life—*Sierra*** Sierra's coming back to the Mac, and it's bringing the best-selling first-person PC title, Half-Life. This game features a fantastic game design and story, plus great character relationships.

47 (21) **Total Annihilation—*MacSoft*** Featuring over 150 military units in land, sea, and air combat, Total Annihilation promises to ruin a lot of relationships.

51 L7 **Rainbow Six—*MacSoft*** In Rainbow Six, you take command of an elite antiterrorist force, plan missions, and execute them in a realistic first-person shooter environment.

69 RC **Civilization: Call to Power—*MacSoft*** In Civilization: Call to Power, you attempt to build an empire from scratch and nurse it along into the future.

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Think nightmare.

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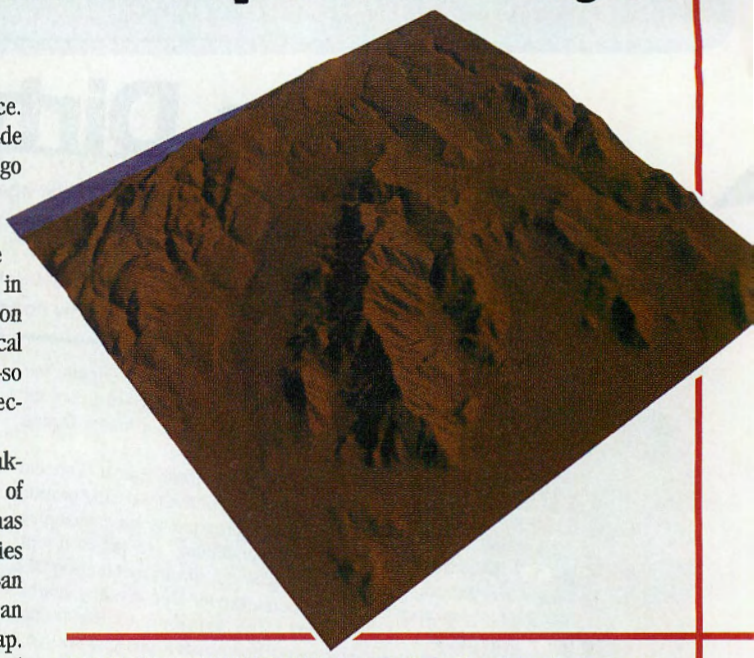
by Ian Sammis

TRICKY

So you've made moonscapes with Bryce. You've made alien vistas. You've even made giant floating doughnuts. Now you want to go to the next step and try to render something *really* strange—San Francisco.

With the original version of Bryce, you'd have been out of luck, but thanks to a nifty addition in Bryce 4, you can quickly make relief maps based on U.S. Geographical Survey (USGS) topographical information. This data is free over the Internet—so long as you've got Bryce 4 and an Internet connection, you can be mapping in short order.

To get you started, we'll walk you through making a topo map of *MacAddict*'s home town of Brisbane, just south of San Francisco. The area has some particularly spectacular topography; it lies along the Bay Area portion of California's San Andreas Fault, which created the lovely San Bruno Mountain, visible in the center of the map. Of course, a quick look at our masthead may lead you to suspect some bias in our appreciation for the region.



SOUTH SAN FRANCISCO, Brisbane, and Daly City. Bryce 4 can import USGS topographical information to make relief maps.

TOUGH
This stuff's for the pros.

TRICKY
It'll take some effort, but you can do it.

EASY
The fundamentals, if you will.

FIND A BRYCE 4 demo on The Disc.

Where to Get Topographic Info

USGS
science for a changing world

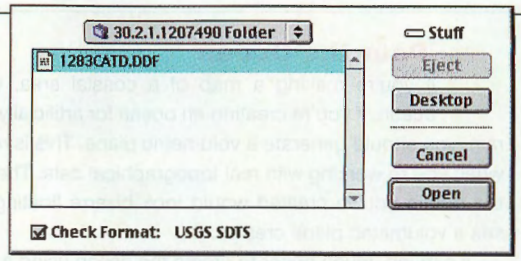
In the United States, the USGS is responsible for mapping. USGS topographical maps come in two formats: DEM (Digital Elevation Model) and SDTS (Spatial Data Transfer Standard). Bryce can read both, but is restricted to reading maps of a single scale: 30-meter, 7.5-minute maps (the name is descriptive; these maps cover a region 7.5 arc-minutes per side, with data points every 30 meters). The USGS makes 7.5-minute maps of most of the United States, all of which are available in SDTS format from its Web site (http://edcwww.cr.usgs.gov/doc/edchome/ndcdb/ndcdb.html). When you try to download a map, you may find two versions of some regions: one has a file name starting with 10, the other has a file name starting with 30. The latter is the 30-meter file you want to use, since Bryce cannot read the higher-resolution 10-meter file.

Once you download the file, you'll notice it comes with an unusual file-name extension—.tar.gz. Several Mac applications are capable of decompressing this format; the most prevalent is the familiar StuffIt Expander with Expander Enhancer installed.

Once the files are decompressed, you may be disconcerted to find they've expanded into folders full of text files with cryptic names. Don't panic—Bryce will quickly latch onto the file it needs to complete the process when you import the topography.

1 Import DEM

Start by downloading the DEM or SDTS file for the region you're interested in from the USGS site. Once you have the files, open Bryce. Choose Import Object from the File menu, then select the DEM or SDTS file you've downloaded. Bryce creates a terrain based on the topography you import. If you read in an SDTS file, you'll have a credible terrain, but if you read in a DEM, your terrain will be totally flat. Fear not—you can fix this later on.



BRYCE DISPLAYS ONLY the files it needs from the SDTS archive.

2 Zoom In

Edit the terrain by clicking the small E icon next to the terrain's bounding box. You'll see a gray-scale image of the imported map. In this case, notice that the actual boundaries of the data are somewhat inset in the terrain Bryce created. This is bad—it looks as though the land abruptly falls into the ocean. To fix the problem, click Zoom Area, then resize the area to fall entirely within the region for which you have data. Click Crop to restrict the terrain to the zoom region.



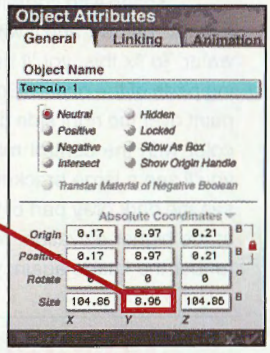
BRYCE MAKES THE TERRAIN LARGER than the map it has read in. You'll fix this by cropping out the area for which you don't have actual data.



NOW THAT YOU'VE CROPPED the data, there are no artificial edges on the map.

3 Raise the Mountains

If you've imported the terrain from a DEM file, you'll need to increase the size of the mountains—although Bryce reads the topography correctly, it sets the maximum height of DEM-based terrain to zero, creating a flat plane. Even if you used an SDTS file, you might want to make the mountains more prominent than they would naturally appear. Raise the mountains by clicking the Attributes button (the A icon next to the terrain), then increase the scale in Y. Go easy here—if you exaggerate the mountains too much, the terrain will look sharp and unnatural.



BY INCREASING THIS NUMBER, you can make the mountains appear taller than they would otherwise.

4 Texture the Landscape

Normally, Bryce uses intricate textures to hide the fact that the terrains you generate are relatively simple, low-resolution objects. Now that you're reading in real topographical data, though, a complex texture will overwhelm the information you're trying to present. Set the texture by clicking the small M icon next to the terrain. To select from a set of premade textures, click the small right-facing triangle to the right of the landscape thumbnail. Use a simple texture—we selected Bryce Terra Cotta, which gives the terrain a smooth look, then we darkened the hue to a deep brown.

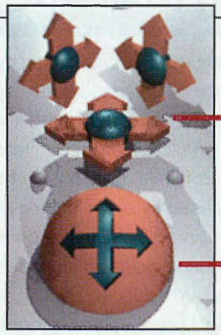


CLICK HERE to select among premade textures.

TO EMPHASIZE THE actual topography, use a simple texture like Bryce Terra Cotta.

5 Mat and Frame the Map

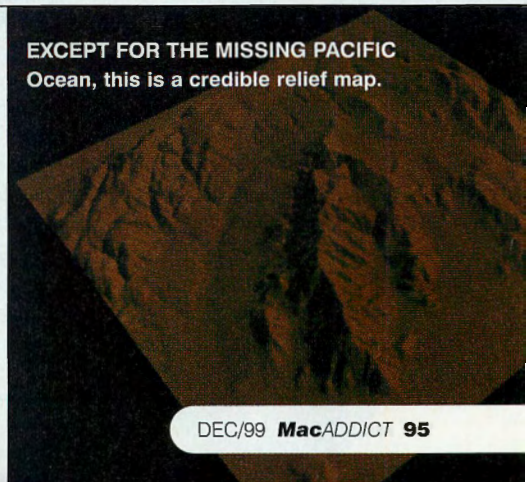
Before continuing, place the map into the framing you want for the final image. Because the relief map fills only a small portion of Bryce's world, you don't want Bryce's usual "total immersion" effect. Select the plane that Bryce places below your terrains, and set its material to Full Black. Now rotate and move the camera, using the camera trackball and controls, so that you're looking down on the terrain. Render it out, and you've got a nice relief map floating in a black void.



CAMERA position controls.

CAMERA rotation trackball.

THESE STRANGE OBJECTS control Bryce's camera.



EXCEPT FOR THE MISSING PACIFIC Ocean, this is a credible relief map.

6 Pour the Ocean

If you're making a map of a coastal area, you'll need an ocean. If you're creating an ocean for artificially generated terrain, you should generate a volumetric plane. This is *not* a good idea when you're working with real topographical data. The boundaries of the terrain you've created would look bizarre floating in the infinite sea a volumetric plane creates.

It's much, much better to create the ocean using a flat terrain with the same boundaries as your landscape—this sharply defines the edge of the map. First select the terrain you've been working on, then duplicate it (select Duplicate from the Edit menu). Now enter the Terrain Editor by clicking the small E that appears next to the terrain's bounding box. Click the Filtering tab. Drag along the bottom of the left box in the control area to create an entirely black filter, then click Apply. This should replace the terrain with a completely flat plane. Once you've done this, set the material of the new terrain to a water texture such as Deep Sea. You've now got an ocean, and because you created it from a duplicate of the terrain it has the correct boundaries. There's a new problem now, though—the coastline is incorrect (the entire area in the foreground should be dry land).



A COMPLETELY black filter turns our duplicated terrain into a flat ocean at sea level.



ALTHOUGH THE OCEAN LOOKS beautiful, Bryce has flooded the low-lying coastal area along the Bay.

7 Repair the Coastline

What's wrong with the coastline? Bryce doesn't draw the landscape with complete accuracy (see "But I Wanted a World, Not a Map!" below), and it will cheerfully cover low-lying areas of land with water. To fix this, you'll have to cheat slightly by removing the offending parts of the ocean. Enter the terrain editor for the ocean again, and paint over the right side of the map with a dark gray color (set the paint color with the control marked Level). To the right of the terrain map you'll see a large bracket. Drag the top of the bracket down until you see the dark gray part of the map change color. This "clips" the terrain at the higher elevation, removing the water from this area. When you render the image again, you'll have a nice, clean map.



BY SLIGHTLY ELEVATING THE OCEAN'S level where you don't want it to appear, then clipping the high stuff, you can fix the flooded coast.

8 Add Detail in Photoshop

At this point, there's a certain amount of detail missing that would make the map look a tad more realistic—rivers and lakes should be blue, for example. Those with artistic talent can add this sort of detail more easily after the fact in Photoshop, which allows more precise control over the final image than Bryce does.



THIS ISN'T BAD, but it'll look much better with the two lakes colored blue.



THE FINAL IMAGE correctly colors Lake Merced and a Bayside lagoon.

But I Wanted a World, Not a Map!

Bryce is an outstanding program for making high-altitude relief maps from topographical information. However, there's a second possible use of real-world data—constructing a view from a position within the landscape (mimicking either a ground-level short view or a flyover). Bryce is *not* ideal for this purpose, due to a landscape model limitation.

The problem is that Bryce represents a landscape as a 256-level gray-scale image. This means much of the information contained in a DEM (which measures elevations down to feet) gets lost when the terrain is read in. This results in smooth, rolling hills that take on a curious, stepped appearance, and prevents Bryce from accurately rendering close-up landscapes.

If you really need landscapes, you'd be better off with a program designed specifically for that purpose. For example, Natural Graphics (http://www.naturalgfx.com) sells a program called Natural Scene Designer (see *Reviews*, Oct/99, p50) entirely devoted to rendering landscapes from topographical data. Such programs produce much better ground-level images than Bryce.

THERE ARE EVEN BETTER PROGRAMS THAN BRYCE for making real-world landscapes.



n real life, SHODAN would make the y2k bug seem like a harmless pest.



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UGO

Multitrack with Your Mac

by Andrew Tokuda

TOUGH

When Apple introduced the Power Mac to the world, 16-bit CD-quality audio became the norm. Many Mac-using audiophiles have learned how to get audio into their Macs, but the concept of multitracking remains a mystery to most. The ability to multitrack will give any musician a profoundly useful tool for presenting their music.

Why would we want more than two tracks of audio when that's all we hear on a stereo? Consider trying to record a performance of a band consisting of four musicians. If all four musicians record onto only two tracks of audio, a mistake by any player would ruin the entire recording, forcing the band to start over from scratch. However, if each musician records onto a separate track and one person makes a mistake, only that player has to re-record the track. This technique also allows a single musician to play multiple instruments in a song. The recording engineer can listen to all the tracks and determine how to place them in the stereo field. This process of recording multiple tracks and then mixing them down to two-channel stereo is called multitracking.

Before getting too excited, you should realize that multitracking takes a lot of hardware muscle. Although it's possible to record onto your existing hard drive, there are limits. Moreover, the more tracks you record, the more demanding it will be for your Mac to accommodate those tracks no matter how much space you have (see "I'll Need *What* Sort of Hardware?!" on p102). Multitracking isn't for anyone on a tight budget!

That said, multitracking can be both addictive and rewarding. Though the possibilities are practically endless, we'll show you the basics. We'll demonstrate how to make a multitrack recording of a group consisting of a drummer, bassist, keyboardist, and vocalist, and we'll record the band into the Mac one player at a time.

FIND DEMOS of Vision DSP 4.5 and Cubase VST/24 4.0 on The Disc.

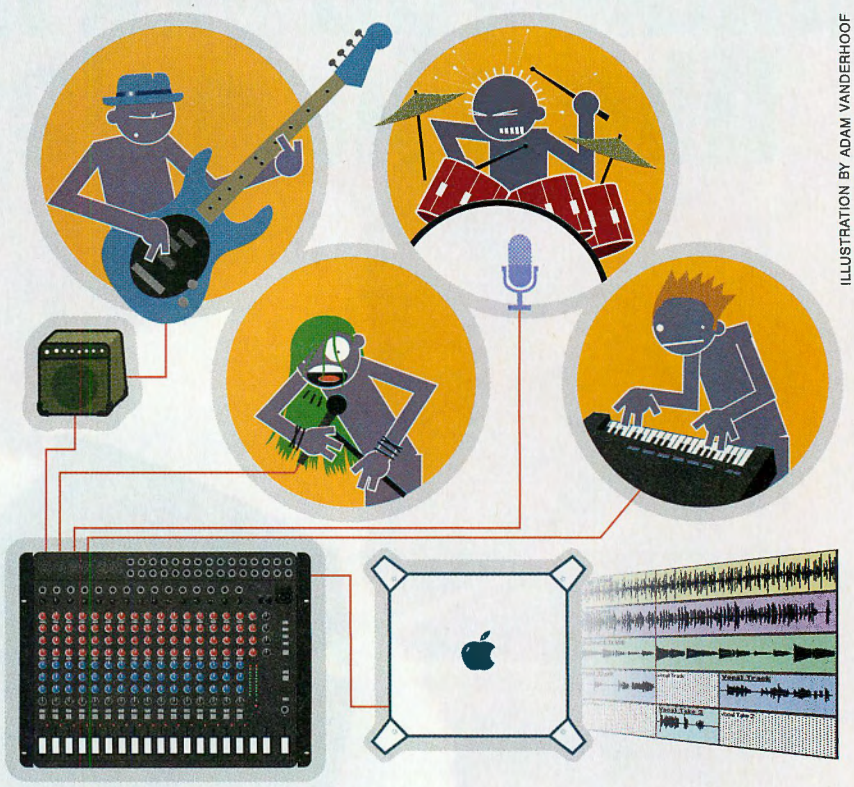
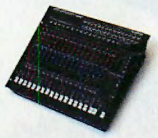


ILLUSTRATION BY ADAM VANDERHOOF

WITH A MIXER AND A MAC, you can record your band like a pro.

What You'll Need

- A Mac equipped with a PlainTalk microphone port, RCA-style audio inputs, or a sound input card
- Hard drive space—lots of it
-  An audio mixer with at least two audio output ports (called Auxiliary Sends) for stereo ($450 and up new)
-  Two sets of dual 1/4-inch male to single, stereo 1/8-inch male audio cables—or adapters if the sizes of the plugs are different ($5 to $20)
-  A microphone, preferably with a stand ($50 and up)
-  Monitor headphones ($20 and up)
- A multitrack digital audio application such as Opcode Systems' Vision DSP ($59.95 Web only, $199.95 boxed; http://www.opcode.com), or Steinberg's Cubasis AV ($79.99; http://www.steinberg.de)
- Talent (optional)



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(Until someone makes language tapes on how to speak "Internet," we're cool with speaking regular words with vowels and stuff.)

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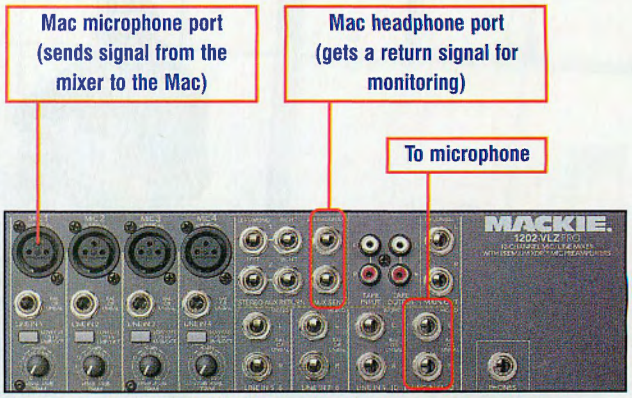
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1 Set the Stage

To multitrack on a Mac, you'll need a mixer with at least two auxiliary buses (also called Effect Sends). Although you're only going to record one track at a time, a mixer is the easiest way to let the players simultaneously monitor what they're playing and the prerecorded tracks. A mixer is also essential when you move on to recording with more than one mike. Hooking up a computer, microphone, and mixer requires a fair bit of cabling, but if you just follow the directions carefully you should be fine. Assuming you're using your Mac's minijack connectors, start by connecting the 1/8-inch plug of one of the audio cables into the Mac's microphone jack. Connect one of the 1/4-inch plugs into the Aux Send 1 port on your mixer. Connect the remaining plug into Aux Send 2. Take the other set of audio cables and plug the 1/8-incher into the Mac's headphone jack. Connect the other ends of the audio cables into two of your mixer channels, preferably using the highest numbers to keep them separate from the instruments; for instance, on a 12-channel mixer plug into channels 11 and 12. Plug the microphone into channel 1 of the mixer and point it at the drummer (it's best to use a stand). Plug the monitor headphones into your mixer's headphone jack.



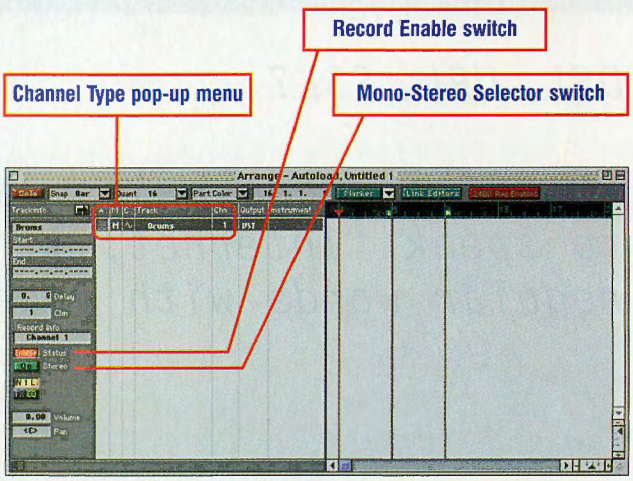
CONNECT THE TWO AUX SENDS of the Mac's microphone and headphone ports to the mixer's highest two channels.

2 Getting Ready for the Take

You'll need to set up the Mac and all the audio components before recording anything. Set the microphone fader level (channel 1 on the mixer) to 0, or U. Have the drummer play, and raise the gain/trim setting until the meters on the mixer are just below the red levels. This ensures optimum loudness.

In the Monitors And Sound control panel on your Mac, set the input to Microphone. Launch your audio application (we'll describe what to do with Cubasis AV, but the steps will be extremely similar even if you use a different program). Create a new audio track by choosing Create Track from the Structure menu. Select the new track, and if necessary make sure you have the pop-up menu in the C column set to Audio Track (this appears as a wave symbol). Also make sure the Stereo button in the Trackinfo column is off, since we are using only one microphone for drums (if you use two microphones, you can record in stereo by using both channels simultaneously). Record-enable the channel by clicking the Enable button in the Trackinfo column. Turn down the channel 1 fader (the slider in the channel 1 column) or you will get an echo effect. Once again, have the drummer play while adjusting the Aux Send 1 level on the mixer. When the levels on channel 1 reach to just below the red, you're almost ready to record.

It's important that the drummer keep consistent time, so it's a good idea to have him or her play along with a "click track" (a built-in metronome). Cubasis AV can provide the drummer with a click track—set the tempo and beat, then use the click button to start.



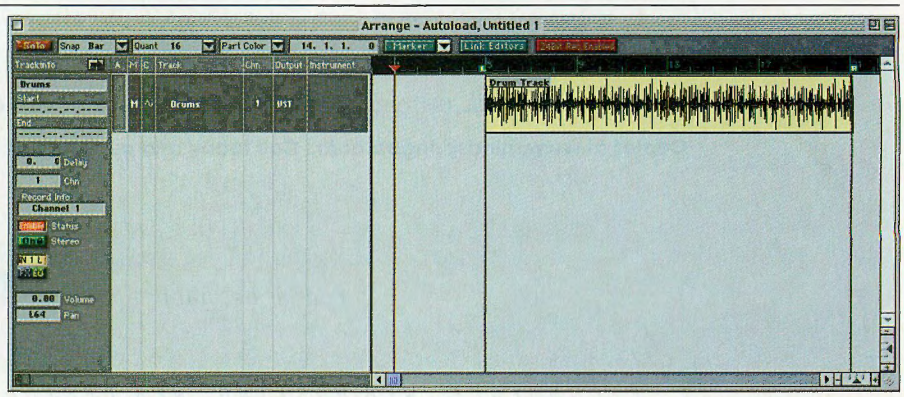
THE BASIC CUBASIS ARRANGE window—or a similar window in another program—is where you'll be doing most of your editing.



MOST DRUMMERS HATE the dreaded Click button.

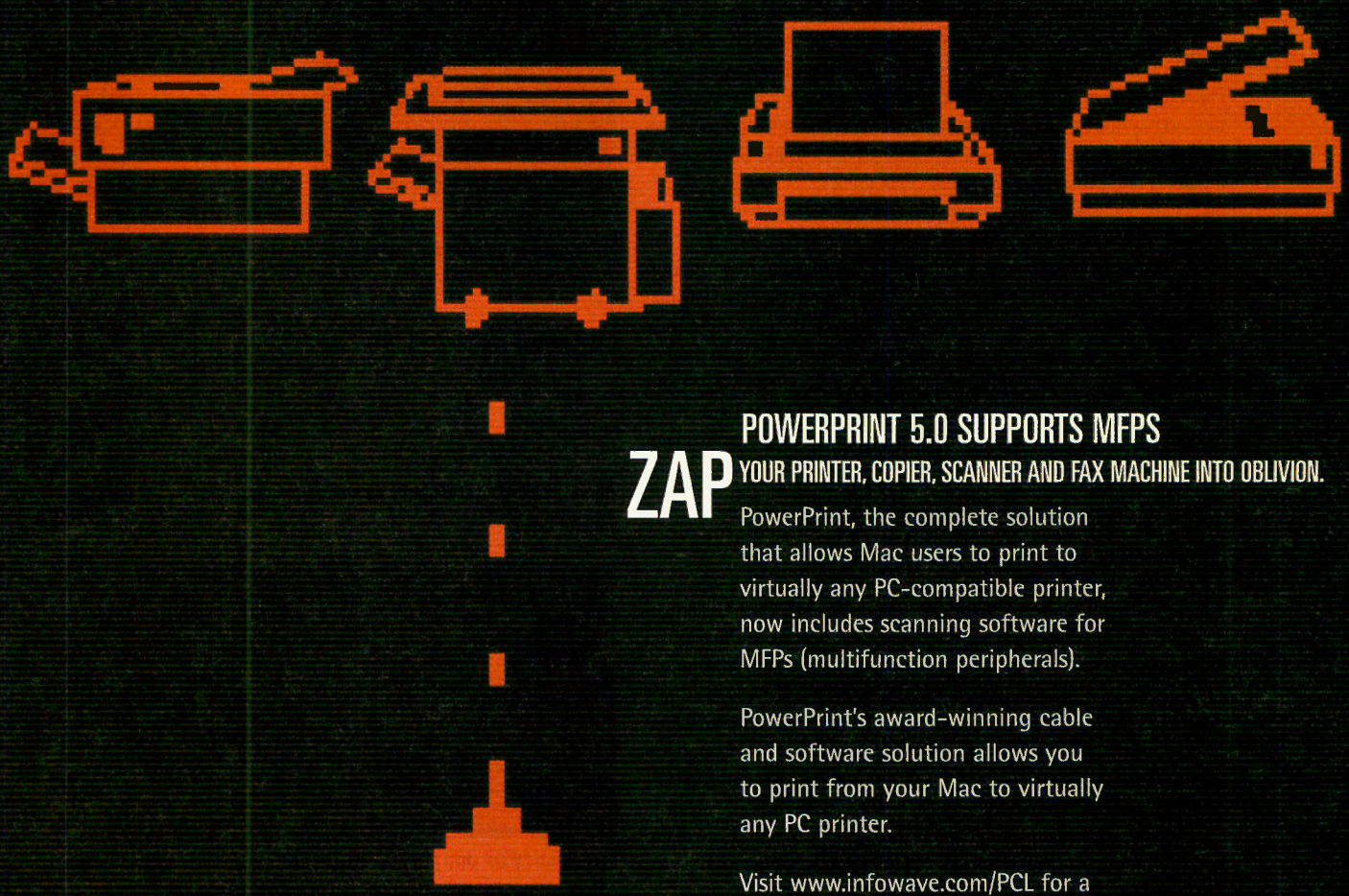
3 We're Rolling!

You're now ready to record the drummer. When you press the Record button for the first time, Cubasis asks where you want to save the audio file. After you have specified a location, there will be a four- to eight-count lead. After that, everything your drummer plays gets saved to the hard drive.



AFTER YOU RECORD YOUR TRACK, you see the waveform of the audio signal.

Space Invaded?



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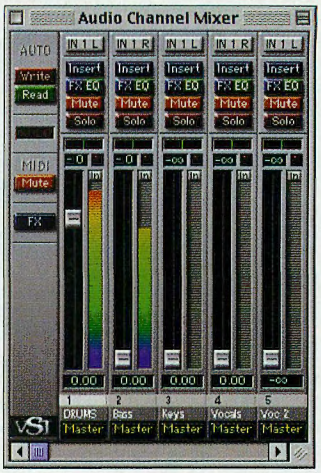
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4 The Bassist, the Keyboardist, and the Vocalist

The setup for these other musicians is nearly the same, with the exception of the input method. The bassist could plug directly into the mixer via a line input, but will get better tone if he or she plugs into the mixer from a line output on an amplifier. The keyboardist can plug the keyboard directly into the mixer. The vocalist can use the same microphone that the drummer used.

Create a new track in Cubasis (track 2) for the bass player, turn down the channel 2 fader, and record-enable the track. Raise the channel 1 fader so the recorded drums can be heard, and press Play. You should hear the drums playing through the headphones. Have the bass player play along to get the groove going while you turn up the Aux Send 2 knob on the mixer to achieve the correct level for the bass. When the bassist is ready, go back to the beginning of the song and press Record. There goes track 2!



TURN DOWN THE FADER for the track you're recording, or your players will hear a slightly delayed echo of their performance.

5 Alternate the Sends

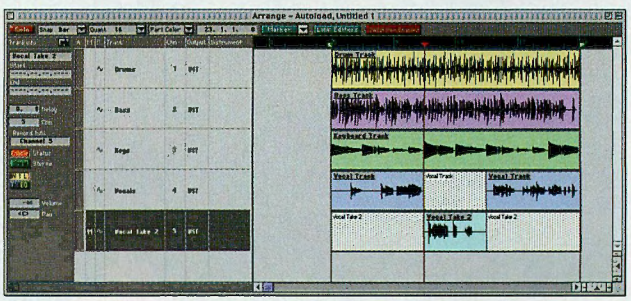
Follow the same steps for the other players. Even though you're recording mono tracks, your audio program will use the "left" input (Aux Send 1) for odd tracks and the "right" input (Aux Send 2) for even tracks, as though you were recording in stereo. You'll need to alternate between the two Aux Sends as you record monaural tracks. This has nothing to do with the placement of the tracks in the stereo field—you'll do that yourself during the mixdown.

REMEMBER TO ALTERNATE between even and odd Aux Sends.

6 The Mixdown

Now you've come to the really beautiful aspect of multitracking. Let's say one of the players has made a mistake in the recording. You can either re-record from the beginning or from just before the mistake, or record a completely new track. In the mixdown stage, where you combine all the players' recordings to make a final mix, you can cut and paste the different takes, adjust levels, pan the instruments (adjust the placement of the audio in the stereo field), add effects, or remove the player altogether.

When you have what you think is the best possible mix, save the audio to a stereo AIFF file that a CD-burning application such as Toast or Jam can use to create an audio CD.

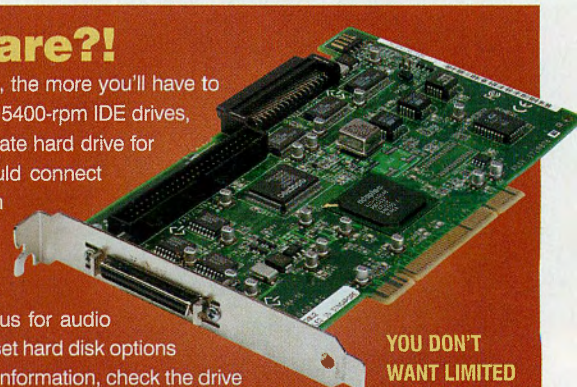


THE BEAUTY OF DIGITAL MULTITRACKING is that it's very easy to fix a single player's errors; here we replace a section of the vocalist's performance with part of another take.

I'll Need *What* Sort of Hardware?!

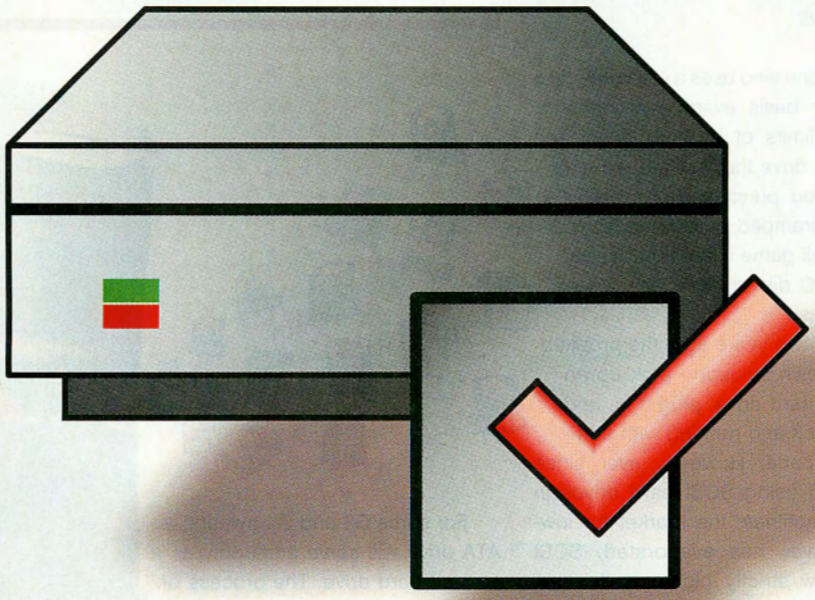
The hard fact about serious multitracking is that the more you want to do, the more you'll have to pay. A key factor here is speed. Most of today's Macs are equipped with 5400-rpm IDE drives, on which the System Folder is located. We highly recommend using a separate hard drive for digital audio. The hard drive should ideally be at least 7200 rpm, and should connect through a fast SCSI bus (Ultra2 is a popular choice). You'll need to get an equally fast SCSI adapter card (for example, an Ultra2 card for your Ultra2 drive). Because of the amount of data you're going to transfer to and from this hard drive, we recommend that the drive not use thermal recalibration. This feature could cause the drive to pause periodically during writing—disastrous for audio recording. It is also a good idea to format the drive as asynchronous. You can set hard disk options using FWB's Hard Disk Toolkit (http://www.fwb.com); for thermal recalibration information, check the drive manufacturer's Web site.

Beyond getting a better hard drive, there are other hardware improvements that will help in multitracking. As with other demanding applications, the more RAM you have, the better—there are many memory-hungry plug-ins that you can use to make a recording sound better. Vision DSP, for example, can use Steinberg's VST-format plug-ins for effects like reverb, echo, and added bass. Serious multitrackers should consider third-party audio cards, which include features like digital input/output and multiple analog inputs and outputs.



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how to
Install a Second ATA Drive in Your G3

by Ian Sammis

TRICKY

Anyone who uses a computer on a daily basis eventually confronts the limits of its hard drive. The 8GB drive that seemed so enormous when you purchased the machine starts feeling cramped quickly under an onslaught of full game installs, MP3 files, large Virtual PC disk images, and oversize office suites.

Until about two years ago, the problem had a well-known solution—pick up an external SCSI hard drive, plug it in, and you would be off and running with additional drive space. However, ever since Apple stopped using SCSI hard drives in most of its machines, the market for low-end SCSI drives has evaporated. SCSI drives are now strictly high-end devices, sporting at least UltraWide connectors and price tags far above those of their ATA equivalents. This has left many Mac users hovering in the drive aisle at the computer store, staring wistfully at ATA drives' vast, cheap storage.



For some G3 and G4 owners, an ATA drive will serve admirably as a second hard drive. The process of adding a second ATA drive isn't enormously difficult, but it can get a tad tricky—if you've never even installed RAM in your machine, you might want to ask a more experienced friend for some help.

ILLUSTRATION BY OLIVIER WOLFSON

What You Need

- A Mac that supports a drive in slave mode
- An ATA hard drive

If you've got a beige G3, you'll also need:

- A new ribbon cable with three connectors
- A vast amount of patience

Which Macs Let You Do This?

So which Macs let you add a drive in slave mode (a second ATA drive)? First of all, if you've got a pre-G3 Mac, you're out of luck unless you want to add a separate PCI card to drive the thing (see "Darn! My Mac Won't Support This Thing," p106). When it comes to the G3s, the situation gets confusing. Apple repeatedly revised both the beige and the blue-and-white G3 models—some of these machines support slave mode, others won't. If you've got a G4, your worries are over—every G4 supports slave mode.

Figuring out if your G3 will support a drive in slave mode takes some Macintosh taxonomic skill. If you've got a beige G3, open the Apple System Profiler from the Apple menu. If your graphics card is a Rage Pro, you're good to go. On a blue-and-white G3, open the case and see if the hard drive is mounted in a U-shaped bracket that extends well above the drive, with clearly visible holes for mounting a second drive above the first. If this is the case, you're in luck—your machine will support a second ATA drive.

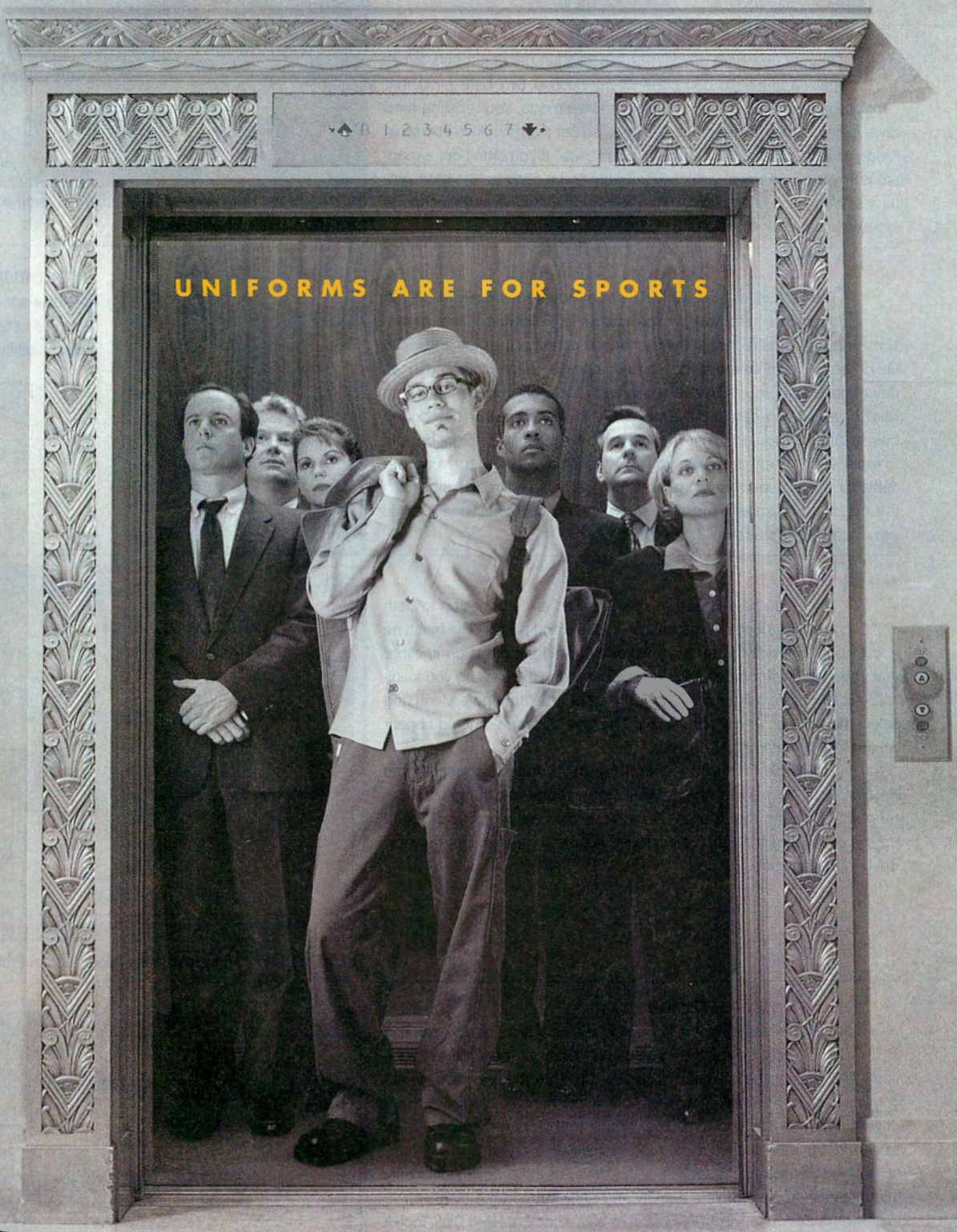
1 Gather the Parts

As with any hardware project, you'll need some parts before you get going. Besides the hard drive itself, if you've got a beige G3 you must have a new ATA ribbon cable with three connectors (one for the motherboard and one for each of the two hard drives). Look for a cable with a lot of space between the drive connectors—the cable run inside the beige case is somewhat difficult to access due to the internal hard drive's odd position, so you'll appreciate the extra space. This isn't an issue with the blue-and-white G3 or with a G4; in those models the two hard drives are designed to sit on adjacent mounts, and the cable already has a second connector for a slave drive. Make sure you also have a reasonable supply of mounting screws for your hard drive.



IF YOU'RE INSTALLING on a beige G3, you'll need a new cable in addition to the hard drive itself.

PHOTOGRAPHS BY AARON LAUER



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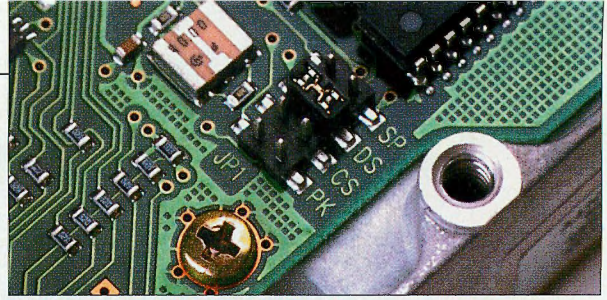
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2 Set the Jumper on the New Drive

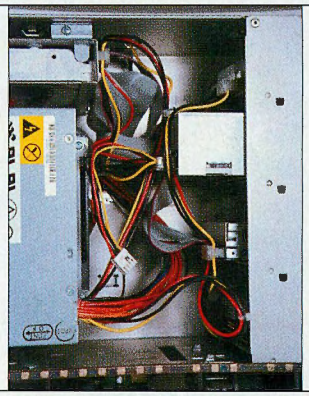
On your new hard drive, there will be a jumper or jumpers (small metal-and-plastic components connecting two bare pins) that control whether the drive is in master or slave mode. Your existing hard drive is set as the master on its ATA bus, so set the new drive into slave mode as instructed in your hard drive's manual. If you didn't get a manual with your hard drive, you can probably find a copy on the manufacturer's Web site. Alternatively, The TechPage (http://www.thetechpage.com) maintains an archive of hard drive jumper settings.



ON THIS DRIVE (A QUANTUM SIROCCO), you remove the jumper from DS to enter slave mode.

3 Mount the Drive

The manual should explain how to mount (physically install) an additional hard drive in your machine. Following these instructions, mount the hard drive in the U-shaped bracket of the blue-and-white G3 or the G4, or in an empty bay in the beige G3. Before screwing in the drive, make sure your ATA cable will reach far enough to connect both hard drives. If you can't stretch the cable to reach the low bay on the beige G3, and if you don't use your floppy drive much, you might be able to replace the floppy drive with your new hard drive—you'll run a shorter cable for this. As soon as you're sure the ATA cable will reach, plug in all the cables, then mount the drive. Remember to connect the internal power cable that's already in your Mac.

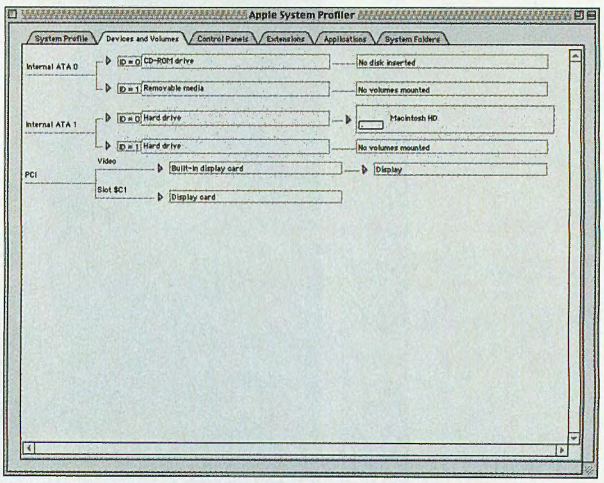


INSTALLATION IS A SNAP in a blue-and-white G3, but it can be very tricky in a beige machine like this one.

4 Boot Up

Once you have the new drive installed and connected to both ATA and power, close up the machine and boot it. The machine should boot normally. If the drive already had a Mac driver on it, either you'll see the driver on the desktop or you'll get an alert asking you to initialize it. If not, open the Apple System Profiler from the Apple Menu and select the Devices And Volumes tab. The new hard drive should appear on one of your internal ATA buses.

If the machine fails to boot, or if the drive doesn't appear in the Profiler, shut down and check your connections and jumper placements. Make sure that the cable didn't disconnect when you closed up the case, and that you've correctly set the jumper to put the new drive in slave mode.

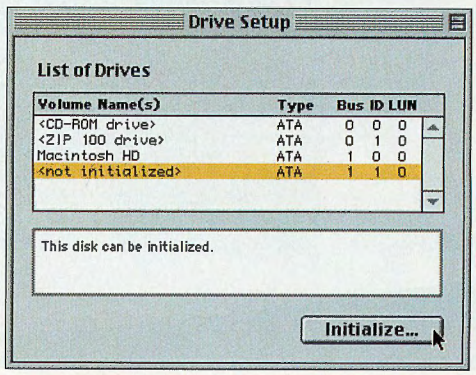


THE NEW DRIVE will appear in the Apple System Profiler.

5 Format the Drive

All that remains now is formatting the new drive so you can use it. For most drives, this is a simple matter. In your Utilities folder, you'll find an application called Drive Setup. Run this program, select your new drive, and click Initialize. After a few minutes, your new hard drive should be ready to use. Your space problems are now over—at least until Bungie releases a few more games.

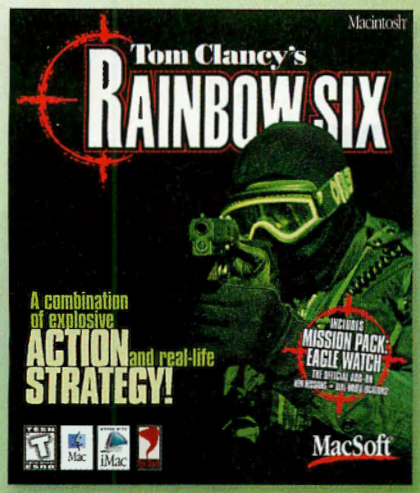
If Drive Setup refuses to format the drive, or if the drive works only intermittently, Apple's drivers may not properly support the drive you've installed. In this case, your best bet is to buy a copy of Hard Disk Toolkit by FWB Software (http://www.fwb.com). Hard Disk Toolkit includes drivers for a much broader variety of hard drives than Apple supports, and provides better troubleshooting.



FORMAT THE DRIVE and you're good to go.

Darn! My Mac Won't Support This Thing

Even if your Mac won't support a second ATA drive, you still might be able to attach more ATA drives if you've got a free PCI slot. Promax Systems (http://www.promax.com) sells a host adapter, the TurboMax/ATA-33, which will give you two additional ATA channels, each of which supports both master- and slave-mode drives. Not all PCI Macs necessarily work with the TurboMax/ATA-33; see http://www.promax.com/turbo.htm for compatibility information.



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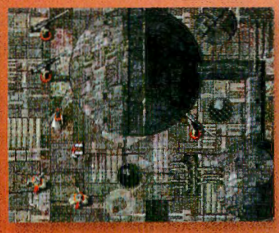






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by Steven Anzovin and Raf Anzovin

TRICKY

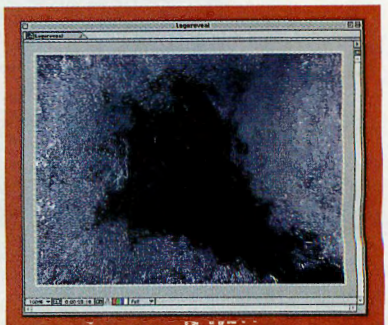
There's no hotter program in the motion graphics world than Adobe After Effects 4 (http://www.adobe.com), Adobe Systems' compositing and 2D animation wonderama for film, video, and multimedia postproduction. Using it, you can edit together video tracks with professional-quality mattes, wipes, and visual effects. The package is phenomenal.

To show off this video-tweaking demon, we've put together a step-by-step guide to a few After Effects tricks—some basic, others more advanced. First, we'll show you how to set up a comp (composite) of an animated track matte that pulls away to reveal text—an effect you can do with the base $995 version of After Effects and two clips from the excellent ArtBeats Digital Film Library (http://www.artbeats.com). In addition, those of you who own the After Effects production bundle ($2,195) can follow along to the last steps, where we add some cool displacement mapping to enhance the watery effect.

FIND AN AFTER EFFECTS 4.0 tryout, a Premiere 5 tryout, and thumbnails of Digital Film Library clips on The Disc.



WE'LL [redacted] BY IMPORTING a watery background movie from ArtBeats.



WE'LL IMPORT A MOVIE of swirling bubbles to add to the final effect.



WE'LL ADD LOGO TEXT to the comp.



WITH THE PEN TOOL, we'll mask out the area where the bubbles belong.

DO YOU HAVE the production bundle?

YES

NO



IF YOU'VE GOT THE PRODUCTION BUNDLE, you can add a cool displacement effect to make the text wave.

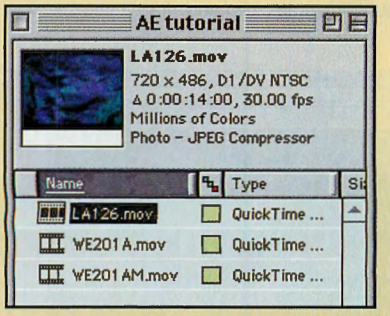


FRAMES FROM THE FINAL MOVIE, with bubbles, displacement, and water.

Creating the Watery Background

1 Import the Water

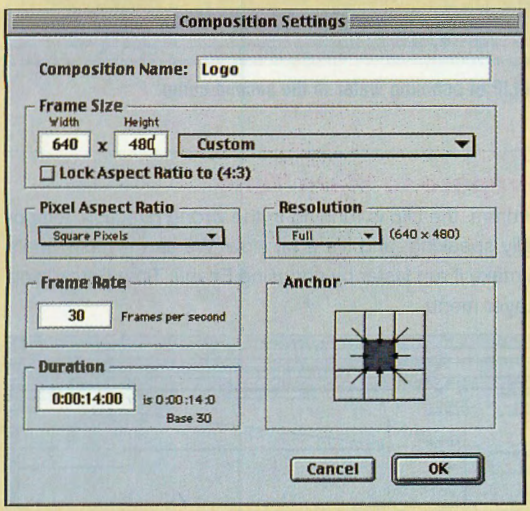
Create a new project in After Effects. Import a QuickTime .mov file of rippling water. We used footage from ArtBeat's clip collection, Digital Film Library—a clip called Liquid Ambience.



MAKE A NEW PROJECT in After Effects, then add a water clip from ArtBeat's Digital Film Library.

2 Make a New Comp

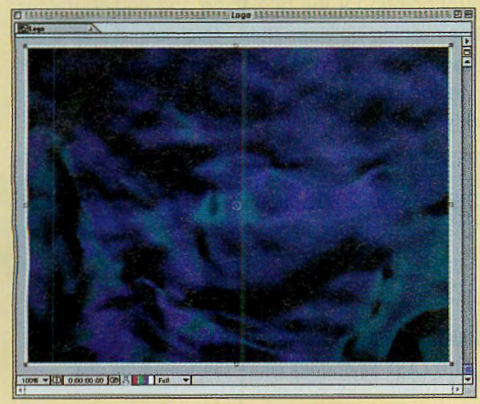
Choose New Composition from the Composition menu (or press Command-N) to make a new comp, then press Command-K to bring up the Composition Settings window. Set the frame size for 640 by 480 (the same as the water footage), the frame rate for 30 fps, and the duration for 14 seconds.



CHOOSE THE SETTINGS for the new composition.

3 Add the Water to the Comp

Drag the water clip from the Project window to the Comp window to set up the first layer.



THIS NEW WATER CLIP COMP will be the background for the shot.

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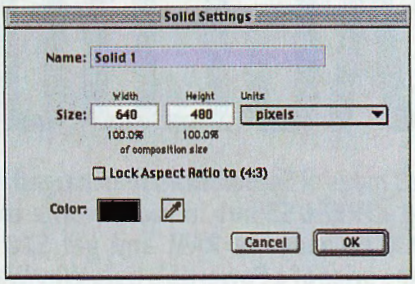
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Creating the Logo Text

1 Create the Text

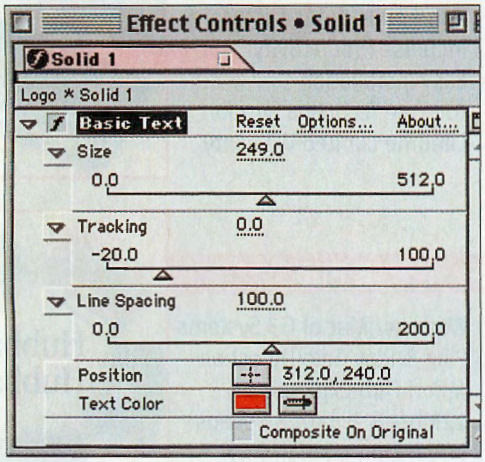
Choose New Solid in the Layers menu (Command-Y) to create a new layer with a solid color (black is okay). In the Time Layout window, select the Solid 1 layer. Apply the Basic Text filter from the Text submenu of the Effects menu. Type some text; set the font, orientation, and alignment; then click OK to apply the text to the Solid 1 layer.



ADD A NEW SOLID LAYER to hold the text.

2 Make It Bigger

The Effect Controls window allows you to regulate the parameters of the text. Use the top slider to size the text; other options control tracking, line spacing, position, and color.



SET THE TEXT PARAMETERS in the Effect Controls window.

3 Change the Mode to Add

Finally, go to Time Layout, click the Switches/Modes button at the bottom of the window to switch to the Modes mode (we know that sounds ridiculous, but...), then switch the mode of the Solid 1 layer from Normal to Add. This operation helps integrate the text into the background footage.



THE TEXT IN ITS FINAL COLOR and size over the water background.

Adding the Bubbles

1 Import the Bubbles

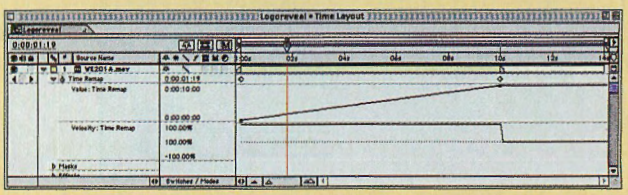
We'll need a second clip of bubbling water for this next step. Create a new comp with the same settings as the first one, but without the water-ripple movie. (Leave the other project open—you'll need it later.) Import the bubbling-water clip and drag it into the new comp window.



ADD THIS CLIP of bubbling water to the second comp.

2 Prepare to Warp Time

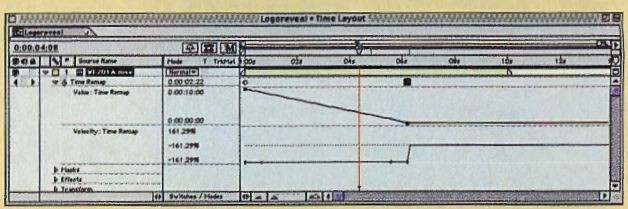
Hmmm, the clip is running in the wrong direction, temporally speaking, and it's a bit slow. We can reverse time's arrow and make it run faster by choosing Enable Time Remapping from the Layer menu.



REMAP THE CLIP in the Time Layout window.

3 Reverse the Bubbles

In the Time Layout window, you'll see the keyframes (the little control points) for the beginning and ending frames, with a diagonal line running between them. Click and drag the end keyframe to the beginning, and vice versa. Then drag the new end keyframe closer to the new beginning one—this makes the clip play faster. Check your changes in the graph.



SWAP THE FIRST AND LAST keyframes while shortening the clip.



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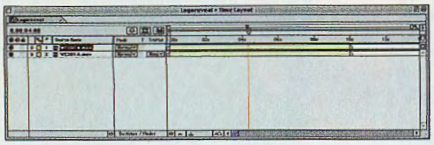
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Making the Track Matte

1 Create the Track Matte

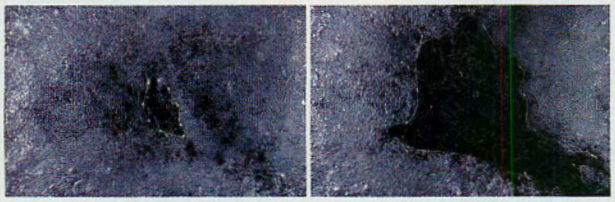
Now we'll make the track matte. In the bubbling water comp, duplicate the bubbling water layer by pressing Command-D—we'll use this to create the mask. Make sure this new layer is uppermost.



COPY THE BUBBLING WATER comp to begin the track matte.

2 Create a Bézier Mask

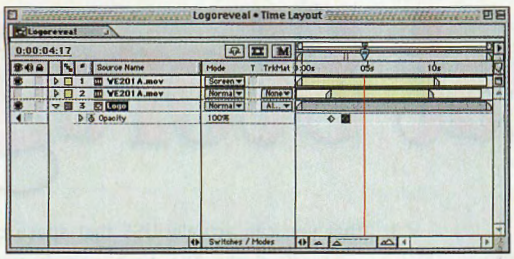
In the comp window, go to the first frame where the bubbling water appears to part, and use the pen tool to create a rough Bézier mask that follows the edge of the bubbles. Go to the Time Layout controls and feather the mask by about 50 pixels. Adjust the mask every few frames as it expands to match the edge of the bubbles.



USE THE PEN TOOL to draw a mask at the edge of the bubbles.

3 Arrange the Layers

In Time Layout, put the masked bubbling layer underneath the regular bubbling layer. Drag over the comp of the logo from the first project you created and place the logo beneath both bubbling layers.



ARRANGE THE LAYERS and set their modes in the Time Layout window.

4 Create an Animated Reveal

In Time Layout, click the eye icon to hide the bubbling layer with the mask. You don't want to see this layer directly. To use the layer's alpha channel as a matte, set the Switches/Modes controls for the logo layer to Alpha. This shows the background only within the mask area. Then set the regular splash layer's mode to Screen, which allows the underlying layers to show through. If you're using the standard After Effects package, you can stop here—you'll have an animated reveal of fixed text over a watery background.

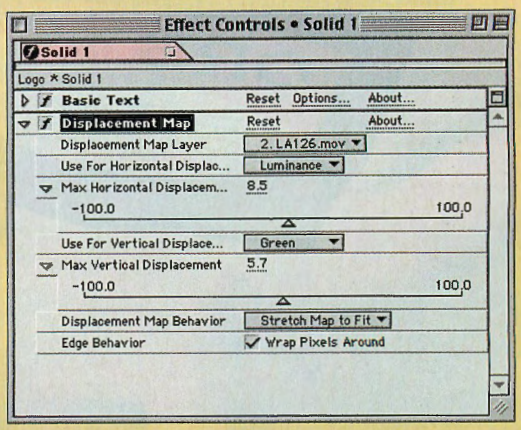


THE TRACK MATTE appears here without the bubble layer. Note the soft edge of the matte.

Making the Text Ripple

1 Add a Displacement Filter

You will need the After Effects Production Bundle for this final step, which supports displacement mapping. We'll use a displacement map to make the text ripple as though it were on the surface of the water. (This simple trick is also good for creating a waving flag and other similar effects.) Go back to the logo comp (the first one you made) and add a Displacement Map filter to the text layer—it's available under Distort in the Effects menu.



USE THE DISPLACEMENT MAP FILTER to make the text ripple by setting a displacement map to match the Luminance values in the water clip.

2 Match Up the Distortion

In the Effects window, set the Distort layer to the rippling background layer. Use the Luminance values of the water layer to distort (this will make the text on top appear to match the light-and-dark changes in the water), and set the distort amount to 8 pixels. A higher pixel value creates more displacement.



NOW THE TEXT APPEARS to move with the surface of the water.

3 The Final Movie

In the completed movie, the bubbles sweep away, revealing the text rippling calmly on the surface.



FRAMES FROM THE FINAL movie, with the displacement map added.

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ask us

Owen's last column...fare thee well, gentle friend.

Questions?

Submit technical questions or helpful tips directly via email (askus@macaddict.com) or c/o MacAddict, 150 North Hill Dr., Brisbane, CA 94005.

FIND ShrinkWrap 3.5 on The Disc.

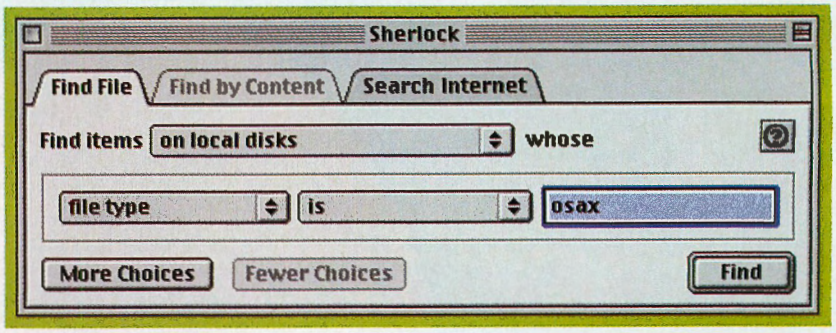
Q I want to upgrade to either a PowerBook G3 or an iMac, but I have tons of software that is incompatible with Mac OS 8. Of particular note is Microsoft Office 4.2.1, for which a tech rep recommended nothing higher than System 7—and I can't afford all the upgrades. Can I partition the drive and run System 7–dependent software on any G3?

A There's no need to create separate partitions to have more than one version of the Mac OS installed on your computer. With Kevin Aitken's freeware application System Picker, you can perform clean installs of different versions of the Mac operating system in a single hard drive partition and switch between them at will. However, according to the Apple Spec Database (http://support.info.apple.com/applespec/applespec.taf), the original PowerBook G3 supports only Mac OS 8 or later, and the original iMac requires Mac OS 8.1 or later. So it appears that even though you could install a version of System 7 (available free from http://asu.info.apple.com) on one of these computers, it's doubtful that it would run properly.

However, all is not lost. With a utility such as MacLinkPlus Deluxe from DataViz (see *Reviews*, this issue, p76), you can convert most of your old data files into documents that you can read with the very latest applications, fully compatible with Mac OS 8. AppleWorks, an office suite of software comparable to Microsoft Word and Excel, comes with the iMac, and when coupled with MacLinkPlus, it can be a viable alternative to Word. Consider how much more productive you'll be working with modern software that screams along at G3 speeds.



SWITCH BETWEEN DIFFERENT SYSTEMS on the same hard drive using the freeware program System Picker.



USE SHERLOCK TO FIND OSAX FILES that belong in the Scripting Additions folder inside the System Folder.

Q I have an original iMac running Mac OS 8.1, and it has two folders named Scripting Additions; one is in the System Folder, and the other is in the Extensions folder. Do I need both of them?

A No, you can combine their contents. AppleScript is an object-oriented script language built into the Mac OS that allows applications to communicate via Apple Events. With the Script Editor, you can write scripts that automate complex and/or repetitive tasks, all in a natural, English-like syntax. Scripting additions extend the AppleScript language with special features you can use in your scripts as part of the language. These files must be located in the Scripting Additions folder directly inside the System Folder for the Script Editor to access them.

Using the Finder's Find feature (Command-F), you can search your hard drive for file type osax and then drag the found items to the correct Scripting Additions folder (this folder should also contain the Dialects folder). In the future, any time you come across a new scripting addition file, drag and drop it onto the System Folder, and the Finder will move it to the right location. Unlike scripting additions, scripts themselves—such as those contained in the Automated Tasks and More Automated Tasks folders—are essentially applications that you can store wherever you like. For more information on AppleScript, please visit http://www.apple.com/applescript.

Q In all the manuals I've looked at, Apple has said not to use the PowerBook G3 above 10,000 feet. Unfortunately, my dad bought the Mac to accompany him to an observatory in Colorado,14,000 feet above sea level. I could be mistaken, but I was pretty sure Apple made a big deal when mountain climbers took a PowerBook to the top of Mount Everest, and I know Everest is bigger than any mountain in Colorado. How do we get the laptop up there without "testing" the warranty?

A You're right. Back in 1996, Liesl Clark, Nova Online producer from WGBH public television in Boston (http://www.wgbh.org), used a PowerBook and a digital camera to help her document the making of an IMAX feature film on Mount Everest, which rises 29,028 feet above sea level (almost five miles high!). Truth be told, Liesl didn't haul the PowerBook all the way up to the summit, but she did lug it up the north side to the advanced base camp, a respectable 21,300 feet up in the thin air. For several weeks she used the standard-issue PowerBook to send digital images, text, and email messages

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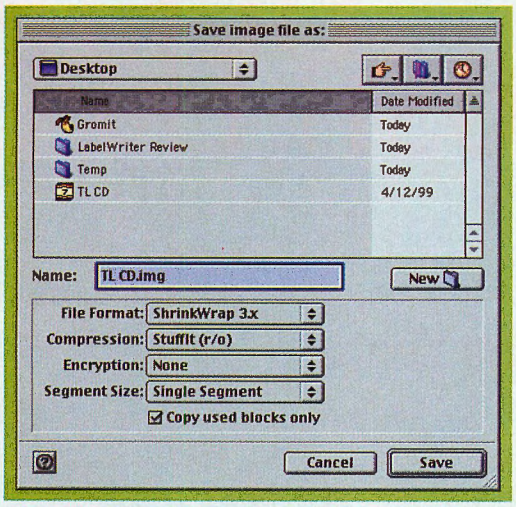
through a satellite phone. Despite consistent subzero temperatures, the Mac performed flawlessly. The only problem was keeping the batteries warm enough to produce electricity. When sleeping with the batteries and leaving them out to bake in the sun didn't do the trick, Clark resorted to putting the batteries in plastic bags and boiling them in water (don't try this at home!). For details on the Everest climb, visit http://www.apple.com/publishing/ama/0201/everest.

According to Apple, above 10,000 feet the principal risks include general operational problems, hard drive problems, and even the possibility of the screen cracking. While I doubt your father will run into any trouble at 14,000 feet, Apple discourages the use of PowerBooks at such elevations and stresses that "damage caused by hostile operating or storage environments is not covered by the Apple limited warranty."

Q I'm wondering if you know whether there is a software program that allows you to copy a CD to your hard drive, enabling you to have multiple CDs at your disposal without inserting the physical disc in the CD-ROM drive.

A The best tool for the job is ShrinkWrap from Aladdin Systems (800-480-4011, http://www.aladdinsys.com), which creates and mounts disk images. Just launch ShrinkWrap, then press Command-K to create an image file containing a byte-for-byte copy of the CD-ROM (you can optionally ignore unused blocks and compress the rest for the smallest possible image files). In this replica, you'll get exact icon placement, appearance of all windows, and the correct name of the disk. When ShrinkWrap is done, you can eject the CD from the drive and use the image file instead.

Since ShrinkWrap copies everything exactly as it appears on the physical CD, the mounted image file is indistinguishable from the original CD as far as the Mac knows, so you can run programs normally requiring that the disc be in the drive. Heck, you can even use ShrinkWrap to mount CD images on a Mac that doesn't have a CD-ROM drive (though you'll need some way of transferring the large file). With ShrinkWrap you can have multiple CD images mounted at once, leaving the CD-ROM drive free for playing audio discs. As an added bonus, running CDs from the hard drive improves performance and saves battery life on PowerBooks.



SHRINKWRAP OFFERS OPTIONS FOR COMPRESSING and encrypting disks and for making exact copies of volumes.

Q *MacAddict* rated the Yamaha CRW4416s as Spiffy, yet I have been told that if you install an internal CD-R drive you can no longer start from CDs—and sometimes I need to do just that. Is this true? If so, wouldn't it be better just to get a faster external CD-R drive rather than replace an internal CD-ROM drive?

A It's possible to remove an internal CD-ROM drive from most Macs and replace it with a faster CD-ROM drive, or even a CD-R (recordable) or CD-RW (rewriteable) drive. You must make sure the replacement drive uses the same bus (SCSI or IDE) as the drive you're removing. The power and data connectors are pretty standard, so you can use existing cables for these connections, but you may need a different audio cable if you want to retain the ability to play audio CDs properly. Finally, unless your replace-ment drive is an Apple-brand unit, you'll need third-party driver software such as FWB's CD-ROM ToolKit (800-581-4392, http://www.fwb.com).

These hardware and software issues aside, you're correct in that it's not always possible to boot from a third-party replacement drive using the tried-and-true method of holding down the C key at startup. If that's the case, try inserting the disc into the drive, and holding down Command-Shift-Option-Delete after you turn on the Mac. This tells the Mac to bypass the internal hard drive and start from the next available SCSI or IDE device it can find.

Considering all of the complications and issues involved, unless your internal CD-ROM drive has completely died, it's probably best to leave it alone and add an external SCSI drive instead of replacing the internal unit. The additional cost of the external drive isn't significant, and you'll retain the ability to boot from a disc in the internal drive, plus you'll be able to mount multiple CDs, making it easy to copy entire discs with a CD-R drive.

Changing of the Guard

This column marks my last installment as the *Ask Us* guy. I've had the honor of filling this space with answers to your most common and perplexing technical questions since the very first issue of *MacAddict* (check out the *Ask Us* archives at http://www.macaddict.com/askus). As emotionally rewarding as it has been to help so many of you, quite frankly I'm a little burned out, and the time has come for me to move on to other challenges. I want to thank Cheryl England personally for initially entrusting me with a column and giving me the opportunity to work with a terrific bunch of *MacAddict* staffers over the past three years. Rest assured, I will continue to contribute reviews and features to *MacAddict,* so you haven't heard the last of me yet. This column isn't going to disappear, either. As great as the Mac is, it's still a long way from perfect—the thousands of emails sent to askus@macaddict.com every month evidence this.

Starting in January 2000, my capable replacement, Buz Zoller, will answer your emails. As readers of the masthead are aware, Buz has long been a *MacAddict* contributing editor, but unless you've been digging through his trash and stalking him with infrared binoculars, you probably don't know the details of his life that qualify him to take on the *Ask Us* column. Buz began his Mac career working in technical support for Apple. He then moved on to do higher-level tech support for the first and greatest Mac clone company, Power Computing, where he wrote "Mac OS Didya Know?", a popular Web column. When Apple killed the clones, Buz brought his brains to these pages as the author of the *Know It All* column, which the *How To* section eventually absorbed. He currently works as a senior technology specialist for a school district in Texas, where he oversees the operation of some 800-plus Macs. Buz is more than qualified to take over this column, so don't hesitate to send him your tough technical questions. I look forward to reading his answers and learning a thing or two myself.

Owen W. Linzmayer (OWL@Bigfoot.com) would like to remind you that his latest book, *Apple Confidential: The Real Story of Apple Computer, Inc.*, makes a great holiday gift.



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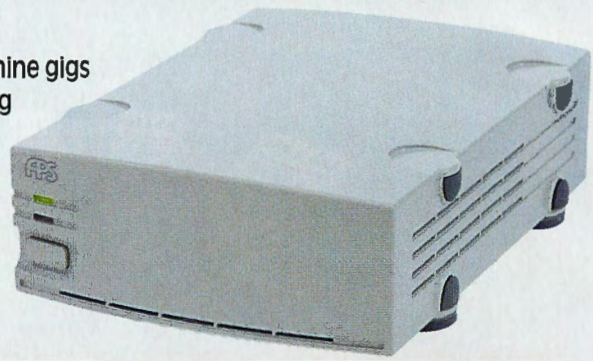
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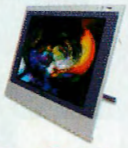
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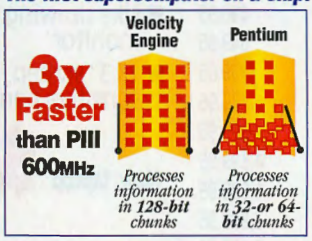
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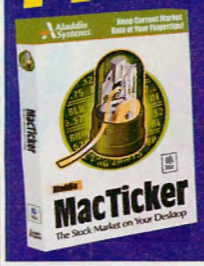
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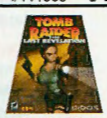
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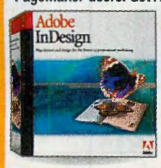


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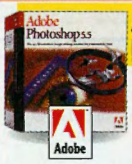
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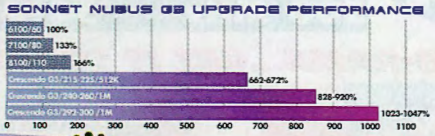
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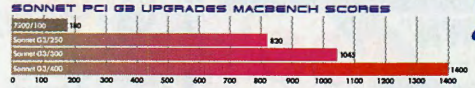
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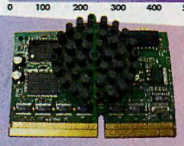
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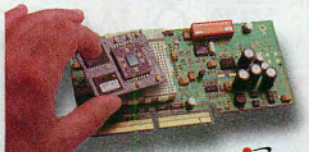
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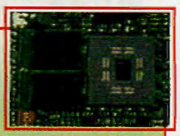
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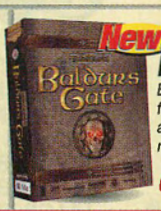


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400MHz

400MHz iMac DV Models



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400MHz

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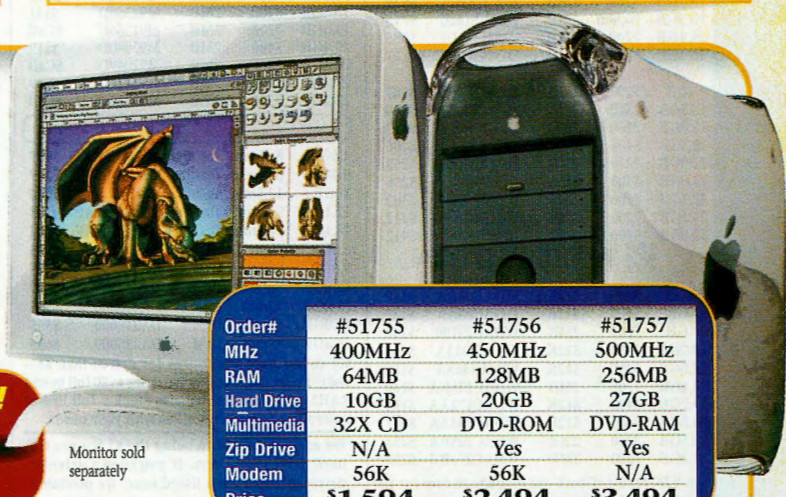
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Multimedia	32X CD	DVD-ROM	DVD-RAM
Zip Drive	N/A	Yes	Yes
Modem	56K	56K	N/A
Price	$1,594	$2,494	$3,494

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36.4GB	7200	2MB	KN336400LW	$941
36.4GB	10,000	2MB	TN336400LW	$1265
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18.2GB	7200	2MB	IBM318350U2	$539
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18.2GB	10,000	1MB	ST318203LW	$689
18.2GB	10,000	4MB	ST318203LW4	$875
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8.6GB	5400	256K	ST38421A	$115
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13.3GB	5400	512K	ST313032A	$135
13.6GB	5400	512K	ST313620A	$Call
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12.0GB	9mm	IBM	DA212000	$379
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Toshiba	XM6602B	40X	79ms	$52
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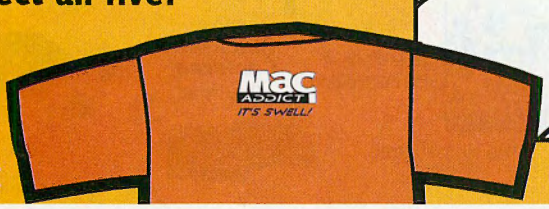
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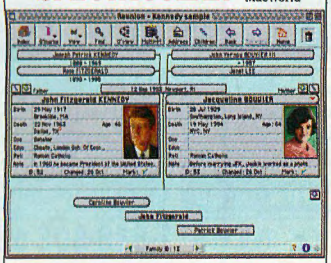
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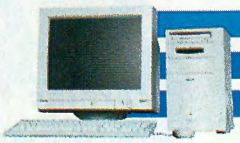
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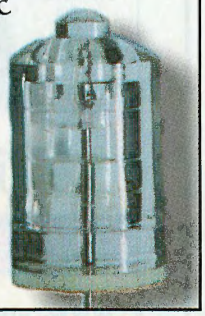
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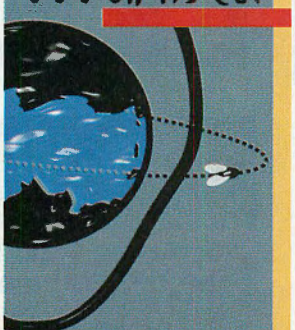
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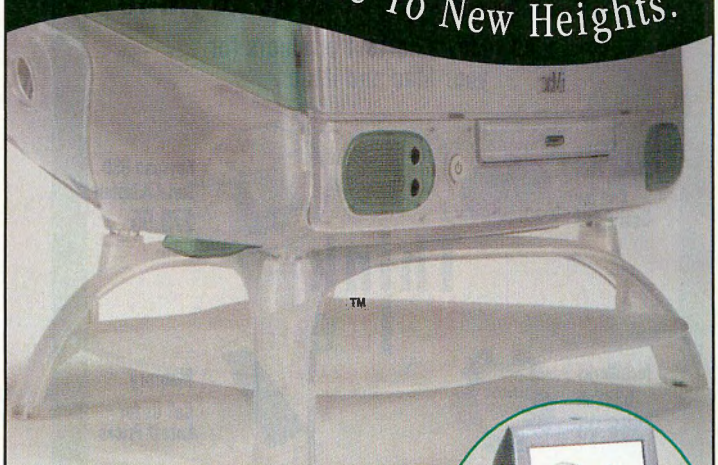
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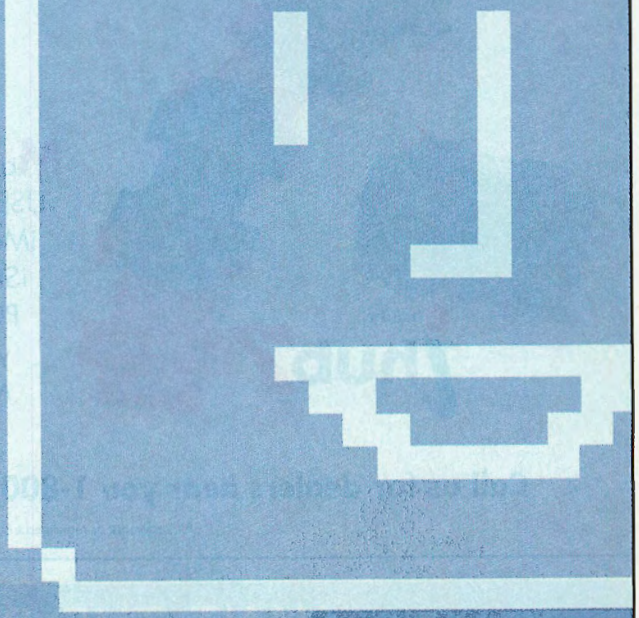
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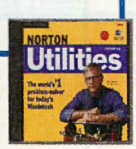
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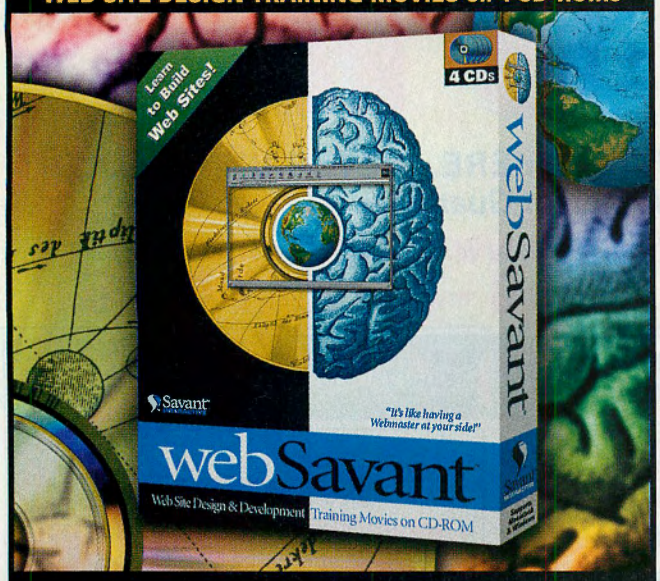
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'Tis the season to get a little silly—fa la la la la la la la la.

Recently, a reader submitted this question: *I live about 80 miles, as the crow flies, northwest of Redmond, Washington. On certain days when the wind is right, I sense palpable evil coming from the southeast. Is this normal?*

We did some research into this question, and the answer is: It depends. If you sensed palpable evil after January 1, 1998, then Microsoft may be in violation of the Evil Emissions Abatement Act of 1997. This act authorizes the EPA's new Office of Vibes and Bad Mojo (OVBM) to regulate the emissions of bad vibes from corporations with more than 250 employees.

What causes emissions of evil? Strong concentrations of evil can emit



VFIO (Vaporous Feelings of Ill Omen), which in turn can condense, forming SPEPs (Solid Phase Evil Particulates). Of the two, SPEPs are by far the more dangerous due to their higher concentration—they enter the food chain when fish devour toxic clumps, then build up to dangerous levels in waterfowl, occasionally causing outbreaks of violent ornithological behavior (see *The Birds* for a 1950s instance caused by a major venting of SPEPs).

Microsoft began a cleanup effort in late 1997, which should have reduced the overall sense of evil by at least a factor of three. Still, Microsoft is being cautious—previous cleanup efforts by IBM and Ashton-Tate were tremendously expensive. The map shown here indicates the maximum allowable sense of evil concentrations in the Redmond area, as dictated by OVBM. If you are sensing evil beyond the limits depicted, contact OVBM immediately.—*IS*

If the URL Fits...

Been following the eOne saga? You know, the iMac knockoff eMachines put out? Well, if you were to take a stab at the company's URL and type, say, http://www.eone.com, you would get Environment One Corporation, a New York–based company specializing in low-pressure, gravity-independent sewage systems—not exactly where you wanted to go today. On the plus side, the sewer system is truly an innovative product, featuring the Grinder Pump, which grinds household waste into a fine slurry for easy pumping. Perhaps eMachines can upgrade after the eOne gets knocked off the market. To check out the iMac poser, go to http://www.e4me.com.—*DR*



The Cream of Journalism

As might be expected, Apple's announcement of the G4 led to a tremendous flurry of announcements in the press. Some of these reports were at least slightly odd—most of the press had gotten out of the habit of saying nice things about Apple during its beleaguered years. Still, a few comments were so totally bizarre we thought they deserved special mention.

- **Silliest oft-repeated phrase** Many press outlets seized upon the phrase "More powerful but not necessarily faster" to try to explain how the Pentium III, with its higher clock speed, could turn in worse benchmark scores than the slower-clocked G4. While it's certainly true that the Pentium III consumes a *lot* more power than the G4, it's hardly more powerful just because it has a higher clock speed.
- **Most gushing review** From *Time* magazine's Lev Grossman, who commented that the case of the G4 "wouldn't look out of place in Superman's Fortress of Solitude."
- **Unclear on the concept** From an MSNBC report: "'It was good showmanship,' says Martin Reynolds, vice president of Dataquest, based in San Jose, California, 'but it was not good benchmarking.' The Intel PC used during the demo, for example, didn't have the same software plug-in used by the G4." Aaaah, we understand now—the benchmark was unfair because the Pentium III couldn't use the Velocity Engine!
- **Needs the G4's floating-point capabilities the most** Britain's *The Register* commented: "Jobs claimed the machine is 2.94 times faster than a 600MHz Pentium III according to data found on an Intel Web site, but Apple's product spec more modestly credits it with being 100 to 200 percent faster than the fastest PIIIs in CPU and Adobe Photoshop tests." For the mathematically disinclined, 200 percent faster is otherwise known as three times as fast—hardly a more modest claim.—*IS*

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